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ABSTRACT

Meeting a growing need among human service and education professionals, this book presents empirically supported guidelines for delivering effective services to 3- to 12-year-olds with aggression and conduct problems. The volume begins by reviewing the characteristics and developmental pathways of children with aggression and conduct problems. The authors delineate a developmental-multisystemic intervention model for reducing risk factors and promoting protective factors in child, parent/family, social/peer, and contextual life domains. Widely used screening and assessment methods are described and best practices identified, with special attention to cultural issues. The sections that follow offer coverage of the full range of interventions, including child and parent/family skills building, mental health treatments, school-based interventions, and community-based child and family support. Particular attention is given to strategies for coordinating multiple services and engaging families in intervention efforts. (Contains over 700 references.) (GCP)

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Helping Children with Aggression and Conduct Problems: Best Practices for Intervention

Michael L. Bloomquist
Steven V. Schnell

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Helping Children with Aggression and Conduct Problems

Best Practices for Intervention

Michael L. Bloomquist
and Steven V. Schnell

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Helping Children with Aggression and Conduct Problems

Best Practices for Intervention

Michael L. Bloomquist
and Steven V. Schnell

FOREWORD BY JOHN E. LOCHMAN

There are many empirically supported assessment and intervention methods available to help children with aggression and conduct problems. In fact, the research base has grown so rapidly in recent years that it is difficult for professionals to keep up with the latest developments. This much-needed volume reviews and integrates the findings of numerous program developers to present best-practice guidelines for clinical, school, and community settings. Written in a clear, accessible style, the book reflects Michael L. Bloomquist and Steven V. Schnell's combined 30 years of applied and research experience in the field. It provides a vital blueprint for practice for anyone working with this challenging population of 3- to 12-year-olds and their families.

The volume begins by reviewing the characteristics and developmental pathways of children with aggression and conduct problems. The authors delineate a developmental–multisystemic intervention model for reducing risk factors and promoting protective factors in child, parent/family, social/peer, and contextual life domains. Widely used screening and assessment methods are described and best practices identified, with special attention to cultural issues. The sections that follow offer coverage of the full range of interventions, including:

- Social competence training
- Parent and family skills training
- Mental health treatments, such as medication, clinic therapy, and restrictive services
- School-based interventions to build academic skills

continued on back flap

HELPING CHILDREN WITH AGGRESSION AND CONDUCT PROBLEMS

Helping Children with Aggression and Conduct Problems

Best Practices for Intervention

MICHAEL L. BLOOMQUIST
STEVEN V. SCHNELL

Foreword by John E. Lochman

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To my wife, Rebecca Syverts—M. L. B.

To my wife, Mary Mullaney Schnell—S. V. S.

About the Authors

Michael L. Bloomquist, PhD, is a Senior Clinical Psychologist in the Children, Family, and Adult Services Department of Hennepin County and a Research Psychologist/Instructor in the Department of Psychiatry at the University of Minnesota, both in Minneapolis, Minnesota. He has extensive applied and research experience in prevention and treatment activities with children exhibiting behavior problems. Dr. Bloomquist is a coinvestigator on several longitudinal studies examining the development of children with aggression, as well as evaluating the effects of comprehensive prevention programs. He is the author of *Skills Training for Children with Behavior Disorders: A Parent and Therapist Guidebook* (Guilford Press, 1996) and has coauthored articles in peer-reviewed journals.

Steven V. Schnell, PhD, has many years of experience working with children exhibiting aggression and conduct problems as a Clinical Child Psychologist at North Psychology Clinic, Brooklyn Center, Minnesota, and at the North Star Family Resource Center, which is part of Minneapolis Public Schools. Dr. Schnell works closely with schools and has a special interest in integrating mental health and educational services. In addition to providing mental health services for children and families, he has conducted training and consultation to teachers and schools, made numerous presentations to professional groups, and coauthored articles in peer-reviewed journals.

Foreword

This volume arrives at an important time when we are frequently reminded in the popular press, as well as in our professional journals, of the frequency and severe consequences of adolescent violence and serious conduct problems. Longitudinal research clearly indicates that aggressive behavior problems in the elementary school years are significant predictors of later severe problems with antisocial behavior in adolescence. In this book, Michael Bloomquist and Steven Schnell address the extraordinarily important treatment and prevention needs of this preadolescent population and do an extraordinary job.

This book covers the topic of children with aggression and conduct problems in a very comprehensive, broad manner, and is well organized into five sections on the nature of children's aggressive behavior problems, on assessment and identification, on child and family interventions, on school and community interventions, and on integration and challenges for these interventions. Thus, the focus of the book is not only on defining the nature of the problem, and on explaining contemporary thinking about theories that account for the development and maintenance of these patterns of antisocial behavior, but also on how to intervene with these problems in "real-world" settings in schools and in communities. The review of the background literature is quite comprehensive, but also very readable, and it provides many references to the most current research and professional thinking about conduct problems in children.

The authors use an excellent conceptual framework involving a developmental and multisystemic model to organize their approach to practice, and provide richly detailed, integrated coverage of the conceptual models, measurement models, and intervention models for externalizing behavior in children. The review of risk and protective factors is state of the art, provides a firm basis for the conceptual model articulated here, and gives the reader a sophisticated view of the multiple, interacting causes of childhood aggression and conduct problems. It is critically important that our methods for assessment are firmly rooted in our thinking about the developmental model for these behavioral disorders, as this text nicely indicates. It is even more essential that the intervention model be designed to target precisely those processes that we know are deficient or are distorted within these children and their families. Only too often psychologists and counselors resort to using an intervention approach that they have learned at a workshop or from a colleague, but which does not address the proven, specific underlying deficits for the behavioral problems, has no evidence for its effectiveness, and may, in some circumstances, have negative iatrogenic effects. An important strength of this book is that it argues convincingly for this need for developmentally appropriate, well-researched interventions, and then provides a synthesis of empirically supported intervention approaches for children with aggressive behavior problems.

There is useful, thoughtful coverage of related topics throughout the book as well, such as research on the types of aggressive and conduct problem behaviors. This key focus can allow us to begin to think about our research-based models in much more finely discriminating ways, and can allow us to address the real differences we experience clinically among our clients with conduct problems. For example, the nature of the social-cognitive difficulties of reactively aggressive children is clearly different from that of proactively aggressive children, and our approaches to intervention must take these variations among subtypes of aggressive children into account.

Two of the key strengths of this book are (1) provision of the best discussion at this time of the range of empirically supported interventions for aggressive, conduct problem children, and (2) innovative and creative effort to abstract important common content elements from empirically supported intervention programs. This book not only overviews the empirically supported interventions that have been used with aggressive children in outpatient clinics or in counselors' offices, but also explains how other broader interventions, such as interventions provided at the level of a whole classroom or a whole school, can also be quite effective. Excellent examples are given of these various programs, along with references to learn more about them. However, what is most unique about this book is its effort to abstract best practices for intervention from the existing literature on research-supported interventions. This effort to provide a broad intervention, which is a careful synthesis of the best programs currently available, truly sets this book apart from other recent texts on children with aggression and conduct problems. Bloomquist and Schnell have approached this task in a highly systematic and thoughtful manner, and the result is outstanding.

Additional useful features are the book's critical emphasis on multicomponent and coordinated services programs, with excellent examples, and a very useful section on engagement of families into intervention. As emphasized by the authors, the available research data suggest that the most effective interventions for children with high levels of aggressive behaviors and conduct problems are, in fact, multicomponent interventions, which target multiple risk factors within the child, the family, and the peer group. Of course, it is one thing to have an effective intervention program and another thing entirely to entice families to participate in the program, and to receive a large enough "dose" of the intervention to make a difference. Bloomquist and Schnell provide very helpful advice on how to maximize parental involvement in the intervention.

As well as being very useful for practitioners, this book is highly appropriate as a classroom text, especially in advanced undergraduate and graduate student courses on developmental psychopathology, child therapy, and prevention science.

JOHN E. LOCHMAN, PHD
Professor and Saxon Chairholder in Clinical Psychology
University of Alabama

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This book would not have been possible without the assistance of many individuals. We cannot adequately express our appreciation to our wives, Rebecca Syverts (M. L. B.) and Mary Schnell (S. V. S.), for providing support and assistance. Without their sacrifices and help, this book truly would never have been written. We greatly benefited from the input of Gerald August, Lauren Braswell, William Dikel, Devin Hazenson, Isabella Moreno, Rick Ostrander, Michael Sancilio, and Jason Walker, who read and commented on early drafts of this book. Their valuable and insightful feedback helped shape the book to its present form. Many thanks to Kitty Moore, Senior Editor at The Guilford Press, for her assistance in preparing and producing this volume. Her thoughtful and excellent editing and numerous creative ideas greatly enhanced the book. Janice McClain did a fine job in typing the text. We are thankful for her many hours of work and for putting up with numerous revisions. Finally, we acknowledge our debt to the clients we have had the pleasure of working with through research and applied activities in clinical, school, and community settings. Our clients were the inspiration for this effort and motivated us to learn as much as possible about effective practices.

Contents

Introduction 1
Focus of This Book 2
Defining Aggression and Conduct Problems in Children 3
A Developmental–Multisystemic Model of Practice 4
Organization of This Book 4
The Authors' Hope 5

PART I. NATURE OF THE PROBLEM

CHAPTER 1. Characteristics and Developmental Course 9
Dimensions of Aggression and Conduct Problems 9
Diagnostic Categories of Disruptive Behavior 16
Heterogeneous Nature of Children with Aggression and Conduct Problems 23
Developmental Progression of Children with Aggression and Conduct Problems 23
Gender Differences 32
Conclusion and Implications for Intervention 34

CHAPTER 2. Risk and Protective Factors Targeted in Intervention 36
Child Biological Risk Factors 37
Parent, Parent–Child Relationship, and Family Risk Factors 40
Social and Peer Risk Factors 49
Contextual Risk Factors 55
Cumulative Risk Factors 59
Development of Resilience in Children 61
Conclusion and Implications for Intervention 67

PART II. ASSESSMENT AND IDENTIFICATION

CHAPTER 3. **Assessment Procedures** 73

Sources of Information and Methods of Assessment 74
Assessment and Culture 90
Assessing Behavior, Functioning, and Risk/Protective Factors 94
Functional Behavioral Assessments in Schools 104
Screening for Aggression and Conduct Problems 111
Conclusion 114

PART III. CHILD AND FAMILY INTERVENTIONS

CHAPTER 4. **Social Competence Training** 117

Overview and Research Evaluation of Social Competence Training 117
Best Practice Models for Social Competence Training 120
Best Practice Delivery Procedures for Social Competence Training 121
Best Practice Training Content Areas for Social Competence Training 128
Conclusion 142

CHAPTER 5. **Parent and Family Skills Training** 144

Overview and Research Evaluation of Parent and Family Skills Training 145
Best Practice Models for Parent and Family Skills Training 148
Best Practice Delivery Procedures for Parent and Family Skills Training 149
Best Practice Training Content Areas for Parent and Family Skills Training 153
Conclusion 174

CHAPTER 6. **Mental Health Treatments** 175

Overview and Research Evaluation of Medication Treatment 176
Best Practices for Medication Administration and Management 180
Overview and Research Evaluation of Clinic Therapy 187
Suggested Best Practices for Clinic Therapy 190
Overview and Research Evaluation of Restrictive Treatments 195
Best Practices for Restrictive Treatments 197
Conclusion 201

PART IV. CONTEXTUALLY BASED INTERVENTIONS

CHAPTER 7. School Interventions for Academic Engagement and Skill Building 205

Overview and Research Evaluation of Self-Management Training 206
Best Practices for Self-Management Training 207
Overview and Research Evaluation of Instructional Strategies 212
Best Practices for Instructional Strategies 216
Overview and Research Evaluation of Home–School Academic Interventions 223
Best Practices for Home–School Academic Interventions 226
Conclusion 234

CHAPTER 8. Schoolwide Interventions to Promote Positive Behavior 236

Overview and Research Evaluation of Schoolwide Interventions to Promote Positive Behavior 237
Best Practice Models for Schoolwide Interventions 239
Best Practices for Schoolwide Interventions: Program Implementation 239
Best Practices for Schoolwide Interventions: Program Content 245
Overview and Research Evaluation of Peer Mediation Programs 250
Best Practices for Peer Mediation Programs 252
Conclusion 257

CHAPTER 9. Classroom and Individual Interventions to Promote Positive Behavior 258

Overview and Research Evaluation of Classroom Interventions to Promote Positive Behavior 259
Best Practices for Classroom Interventions to Promote Positive Behavior 261
Overview and Research Evaluation of Individual Interventions to Promote Positive Behavior in School 271
Best Practices for Individual Interventions to Promote Positive Behavior in School 273
Conclusion 278

CHAPTER 10. Community Interventions for Child and Family Support 279
Overview and Research Evaluation of Mentoring Programs 280
Best Practices for Mentoring Programs 281

Overview and Research Evaluation of After-School Programs 283
Best Practices for After-School Programs 286
Overview and Research Evaluation of Case Management Services 290
Best Practices for Case Management Services 292
Overview and Research Evaluation of Therapeutic Foster Care 297
Best Practices for Therapeutic Foster Care 299
Conclusion 303

PART V: INTEGRATION AND CHALLENGES

CHAPTER 11. Comprehensive Multicomponent and Coordinated Services Programs 307
Multicomponent Intervention Program Models 308
Coordinated Services Program Models 319
Best Practices for Coordinated Services Programs 327
Conclusion 331

CHAPTER 12. Challenges in Implementing Effective Interventions: Engaging Families and Coordinating Service Systems 333
The Family Engagement Challenge 333
Best Practices for Engaging Families in Interventions 335
Best Practices for Making Interventions Culturally Compatible 341
The Service System Coordination Challenge 348
Best Practices for Creating Coordinated Services Programs 349
Conclusion 352

Epilogue: Future Directions 353

References 357

Index 412

Introduction

A recent U.S. surgeon general's report (U.S. Department of Health and Human Services, 2001), which reviewed the epidemic of youth violence in the United States, showed that violence and antisocial behavior among youth is occurring at an alarming rate. The surgeon general noted that "the most urgent need is a national resolve to confront the problem of youth violence systematically, using research-based approaches, and to correct the damaging myths and stereotypes that interfere with the task at hand" (p. 3). The report debunked the myth that children with these problems are beyond help and revealed that there are many innovative interventions that can be used to enable these children to lead more productive lives. Specifically, the surgeon general advocated the use of comprehensive intervention approaches with children who are showing early signs of aggression and conduct problems, as well as for children who are engaging in established patterns of violent and antisocial behaviors. To improve the status of these children, interventions need to be employed that reduce risk factors related to problem development and enhance protective factors related to adaptive development.

Children who display aggression and conduct problems at a young age are at risk for developing violent behaviors, mental health problems, school dropout, chemical dependency, occupational difficulties, marital and family problems, and criminal offending outcomes as adolescents and adults. Those children that persist in their problems impact society directly through victimization or indirectly through the financial costs involved in treating and rehabilitating them in mental health, educational, correctional, medical, and other social service delivery systems. Early-onset aggression and conduct problems in children should be considered a public health problem of equal or greater magnitude to smoking, drug abuse, teenage pregnancy, and sedentary lifestyles.

Fortunately there are many effective assessment and interventions methods available to help children with early aggression and conduct problems. It is difficult, however, for practitioners and other professionals to be fully informed about the range of effective practices and keep up with new developments. In this book we synthesize what is known about the best assessment and intervention procedures to better equip professionals who work with these children and their families. In so doing, we hope to assist practitioners in moving toward the comprehensive approach of assessment and intervention that was called for by the surgeon general.

FOCUS OF THIS BOOK

It is our belief that a wide variety of people will benefit from reading this book. Our primary intended audience is practitioners who work in school, community, clinical, and other service delivery systems where children with aggression and conduct problems are often served. We think the book could be used as a resource to facilitate interdisciplinary collaboration and greater coordination across professionals and service systems. The book will also be useful for researchers who are evaluating practice procedures, administrators who are refining and developing services, policymakers who are looking for information pertaining to effective intervention methods, and students learning about child and family services. Parents and teachers will also profit from reading about the many strategies presented here.

The main goal of this book is to provide a description of best practices in assessment and intervention for children up to age 12. Best practices are based on our review of the research and an integration of practice procedures from numerous sources. Although we do not present exhaustive research literature reviews, we do present enough to demonstrate the utility of a particular intervention and to enhance the confidence of practitioners in using them. In other words, the best practices presented are empirically supported. Likewise, when describing specific practices, we do not review every possible practitioner source. Rather, we identify exemplary or promising models of intervention and try to integrate practice information across selected sources to establish best practice parameters. Our decisions pertaining to which research and practice sources to review and integrate are based on our own judgment. Those judgments were made from the vantage point of our combined 30 years of applied practice and research experience with children who exhibit aggression and conduct problems in clinical, school, and community settings.

Throughout the book we use the terms *intervention* to describe what is being done when best practices are implemented and *practitioner* to describe the individual who delivers it. We are aware that interventions range on a continuum from prevention to treatment. Most of the practices in this book, in our opinion, are not specific to prevention or to treatment. Many of the best practices described could be used in either context. On occasion we refer to prevention or treatment when procedures are specific to those endeavors, but for the most part we stick to the broader notion of intervention when describing best practices. We present best practices and rely on practitioners to apply them within the prevention or treatment context. Likewise, many of the best practices we describe can be conducted in different settings by a variety of human services and educational professionals. In our opinion, similar interventions can be applied in different settings as long as well-trained professionals conduct them. To us, the setting or one's credentials are less important than making sure best practices are used. Most of our discussion of various best practices is not bound to any one setting or kind of professional.

There is a lot of information in this book! One practitioner cannot realistically conduct all the interventions described and a single family would not require them. Therefore we recommend that the reader use this book as a handbook and reference source. The detailed Table of Contents can be used to pinpoint topics that are most relevant to a practitioner. The book will enable the practitioner to derive a good understanding of the best practices that relate to his or her work, and make him or her better informed of best practices that children should receive when they seek services in other settings.

DEFINING AGGRESSION AND CONDUCT PROBLEMS IN CHILDREN

The heterogeneous nature of children with aggression and conduct problems presented us with a challenge concerning what terms should be used throughout the book to describe them. These children may share the common broad characteristic of exhibiting a form of aggression and conduct problems, but there are a variety of narrow characteristics that distinguish one child in this group from another (e.g., reactive aggression, relational aggression, oppositional, etc.). We grappled with the idea of using a broad term to describe these children versus using the many narrow characteristic terms that are defined in Chapter 1. Ultimately, we chose a middle ground. It seemed to us that it would be confusing and cumbersome to continuously go back and forth between the many characteristic definitions. We also recognized, however, that it would be helpful to specify narrow characteristics when they relate to specific practices. Thus throughout the book we use the broad term *aggressive/conduct problem* (ACP) to describe the general population of children with aggression and conduct problems. *The ACP definition denotes children who manifest some form of early-onset aggressive behavior and who also display, or who are at risk for displaying, covert an-*

tisocial actions. This definition simplifies discussion of the material because the book is largely about describing best practices that may be applicable to a wide range of aggressive behaviors and conduct problems in children. We also rely on narrow characteristic terms to relate to specific assessment and/or intervention methods, where applicable. In other words, we articulate general best practices for the broad group, but also note specific practices when warranted.

A DEVELOPMENTAL–MULTISYSTEMIC MODEL OF PRACTICE

In this book, a developmental perspective (see, e.g., Cummings, Davies, & Campbell, 2000; Luthar, Cicchetti, & Becker, 2000; Masten & Coatsworth, 1998) is blended with the multisystemic intervention approach (see, e.g., Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998). The resulting developmental–multisystemic model of practice is a theoretical and heuristic framework used as a basis for developing and conducting interventions with children manifesting ACP. This model of intervention is utilized to articulate procedures to redirect children who are progressing down a developmental pathway of escalating problems to a resilient developmental course. *The developmental–multisystemic model of practice attempts to promote resilient development by reducing risk factors and promoting protective factors in the child, parent/family, social/peer, and contextual "life domains"* (i.e., areas of influence on children's development). To accomplish this, comprehensive interventions that reach across these four life domains need to be employed. The developmental–multisystemic model of practice is detailed in Chapter 2 and is the basis for the assessment and intervention practices described throughout the book.

ORGANIZATION OF THIS BOOK

The book is organized into five parts. Part I examines the nature of the problem. It contains two chapters that lay the foundation for the book by describing the characteristics, developmental pathways, and associated risk factors that are seen in children with ACP. In addition, information pertaining to protective factors observed in resilient children is also presented. This culminates in a more detailed description of a developmental–multisystemic intervention model that organizes interventions to reduce risk factors and promote protective factors in the child, parent/family, social/peer, and contextual life domains.

Part II presents information pertaining to assessment and identification. The single chapter in this part reviews basic issues that are important in the assessment of any childhood problem. The discussion then moves toward specific issues for assessing children with ACP. Procedures are suggested to diagnosis children and to evaluate the presence of potential risk factors in the four life domains. This comprehensive approach leads to effective treatment planning to reduce risk factors and to promote protective factors.

Part III, consisting of three chapters, presents child and family interventions that directly influence individual, parent/family, and social/peer factors. Skills training interventions that enhance children's social competencies are described. Interventions focused on parent and family skills development are also presented. Finally, there is a discussion of mental health treatments that deal with entrenched problems. Many or all of these interventions may be necessary when intervening with children exhibiting ACP and their families.

Part IV, with four chapters, presents contextually based (i.e., school and community) interventions. The school-based interventions described in this part make an impact on individual, social/peer, and contextual domains. They include efforts to enhance academic skills, improve school behavior, and teach social and emotional skills in the school setting. The community-based interventions that are discussed improve individual, parent/family, social/peer, and contextual factors to varying degrees. The interventions provide child and family support. The contextually based approaches to intervention are essential for children exhibiting ACP and their families.

Part V deals with integration and challenges. The two chapters in this part attempt to build upon the previously described intervention strategies. University-derived multicomponent interventions and "real-world" coordinated services programs that simultaneously effect two or more life domains are described in one chapter. The underlying assumption is that comprehensive and multifaceted interventions will be the most effective. To affect change, however, it is important to engage families and ensure that systems are set up to offer such comprehensive intervention approaches. Therefore, the last chapter deals with the challenges of effectively engaging families and creating coordinated service delivery systems.

THE AUTHORS' HOPE

We recognize that one practitioner cannot provide all the assessment and intervention procedures described in this book. We do think, however, that practitioners should understand all the different practice options, should conduct their work using best practices, and should provide an opportunity for children and families to participate in a broad array of necessary interventions. We have also observed that truly effective interventions ultimately require coordination among many practitioners and service systems. Therefore we advocate that all professionals make it a priority to provide such coordinated services. Being aware of the research and best practices pertaining to different assessment and interventions methods will make practitioners more effective in providing services and coordinating with other service systems. We hope this book will assist practitioners and other professionals in being able to realize the best approaches to practice. We further hope that practitioners and other professionals will translate these best practices into improved lives for children with ACP and their families.

PART I

NATURE OF THE PROBLEM

CHAPTER 1

Characteristics and Developmental Course

*I*n this chapter we will review the basic characteristics and developmental course of children with ACP. The chapter is designed to create a foundation to familiarize the reader with the behaviors, prevalence rates, coexisting problems, developmental pathways, and gender differences found in this population of children. Ultimately this information will assist practitioners in implementing appropriate and effective assessment and intervention procedures. The characteristics and associated problems of these children is the initial target of interventions. Potential differences between boys and girls need to be taken into account. Practitioners also need to understand developmental processes to implement development-enhancing interventions. We will expand upon the relevance of characteristic and developmental information to intervention throughout this chapter.

DIMENSIONS OF AGGRESSION AND CONDUCT PROBLEMS

In this first section we review specific dimensions or characteristics that are commonly observed in children who exhibit ACP. Research has determined that these dimensions are meaningful descriptors that have implications for children's development. These dimensions need to be taken into consideration when conducting interventions with these children.

Overt Aggression

Overt aggression includes harmful verbal and physical acts of aggression that are directed toward others, property, or self (Connor, Melloni, & Harrison, 1998; Hughes, 1988). Overtly aggressive acts also involve fighting and delinquent crimes with direct confrontation (e.g., rape, assault, robbery) (Loeber & Stouthamer-Loeber, 1998). Boys are more likely than girls to display overt aggression. When the generic term *aggression* is used, it usually implies overt aggression.

Children show aggression in home, school, and community settings (Loeber & Stouthamer-Loeber, 1998). Confrontations at home between the aggressive child and his or her parents or other family members can range from severe oppositional behavior to physical aggression. Aggression at school usually stems from disagreements between children, but occasionally involves direct confrontation with teachers. Aggression occurring in community settings can involve violent crimes and/or coexisting covert conduct problems (e.g., stealing, vandalism, firesetting).

Overtly aggressive children are often described as "fighters." Some fight at home only, some at school only, and some in both settings. Those children who fight in both home and school settings have the most entrenched and severe problems in the social, academic, and emotional domains (Loeber & Dishion, 1984). Boys are more likely to fight, but some girls exhibit fighting during the elementary school-age years. The frequency of fighting dissipates somewhat as children grow into adolescence (Loeber & Stouthamer-Loeber, 1998), with boys and girls equaling each other in later adolescence (Achenbach & Edelbrock, 1986). Boys who persist in fighting over many years develop numerous psychiatric diagnoses and display global impairment (Loeber, Green, Lahey, & Kalb, 2000).

Reactive/Proactive Aggression

Whether aggressive behavior is spontaneous or carefully planned further defines overt aggression (Vitiello & Stoff, 1997). One subtype is reactive aggression (similar to affective aggression in animals), an unplanned responsive aggressive behavior to an evoking stimulus. The stimulus may be real or perceived. When the stimulus is present, the individual has an expectation of a negative outcome (e.g., that self will be harmed if not for an aggressive response), becomes physiologically aroused, and responds aggressively. Another subtype is proactive aggression (similar to predatory aggression in animals), when aggressive behavior is planned with a goal in mind. The individual who engages in this type of aggression is typically calm (not physiologically aroused), has high self-confidence, and has positive expectations for the result of the aggression. Different neurological/anatomical and biochemical processes are involved in the activation and maintenance of different forms of aggression (Vitiello & Stoff, 1997).

Reactive and proactive forms of aggression are seen in some children. Reactive aggression is observed when a child exhibits an angry or hostile reaction to a real or perceived threat (Dodge & Coie, 1987). For example, a child gets bumped in the hallway and starts throwing punches in response. Proactive aggression occurs when a child uses intentional and planned aggressive actions to achieve a goal or to dominate another child (Dodge & Coie, 1987). For example, a child believes another child offended him during the school day and deliberately plans to beat up that child after school. Reactive aggression occurs more often than proactive aggression, and boys are more likely than girls to exhibit either form of aggression (Coie & Dodge, 1998; Day, Bream, & Pal, 1992; Dodge & Coie, 1987). In addition, reactively aggressive children are less well liked, have poorer social skills, have problems with inattention/impulsivity, and exhibit more emotion disregulation than proactively aggressive children (Day et al., 1992; Dodge & Coie, 1987; Dodge, Lochman, Harnish, Bates, & Pettit, 1997; Price & Dodge, 1989; Rubin, Coplan, Fox, & Calkins, 1995; Shields & Cicchetti, 1998). Researchers have also determined that many reactively aggressive children come from backgrounds of physical abuse (Dodge et al., 1997).

Even though the reactive and proactive forms of aggression are distinct, they are also highly correlated with overall overt aggression. Both forms of aggression are associated with overall global impairment, classroom behavior problems, and peer adjustment difficulties (Dodge & Coie, 1987; Washbusch, Willoughby, & Pelham, 1998). Some children exhibit both reactive and proactive aggression and can be more accurately classified as "pervasively aggressive."

Relational Aggression

Relational aggression is characterized by the intentional actions of one child toward another that are designed to harm through manipulation and damage to relational status (Crick, 1995). The aggressor withdraws or threatens to withdraw affiliation from another child and excludes that child from a friendship group (Crick & Grotpeter, 1995). Most research suggests relational aggression is more characteristic of preschool- and school-age girls than boys (Crick, Casas, & Mosher, 1997; Crick & Grotpeter, 1995; Rhy & Bear, 1997). Crick and Grotpeter (1995) theorized that relational aggression is more effective in girls harming other girls because it interferes with girls achieving the important goal of maintaining intimate friendships. One study, however, found that both relational and overt aggression were more prevalent in school-age boys than in school-age girls (David & Kistner, 2000). The gender discrepancies across these studies may reflect differences in the samples examined or the experimental procedures used.

Relationally aggressive children have a variety of adjustment problems. These children are more socially and emotionally maladjusted, are more likely to be rejected by peers, and are more likely to be defiant, impulsive, and depressed/anxious compared to normal peers (Crick, 1995, 1997;

Crick et al., 1997; Crick & Grotpeter, 1995). It appears that children who display nonnormative forms of aggression—for example, relationally aggressive boys and overtly aggressive girls—have the most significant adjustment difficulties and peer rejection (Crick, 1997).

Bullying

Bullying involves one child directing aversive behavior to another child that physically or emotionally harms or intimidates (Farrington, 1993; Olweus, 1991, 1994). Bullying is repetitious and characterized by relationships with an asymmetrical power hierarchy (i.e., the bully has more power than the victim does) (Smith & Brain, 2000). The most typical pattern of bullying is a boy bullying another boy or a girl. But some girls will bully other girls. Most bullying takes place during the primary or elementary school years, but it can also occur during the secondary school years. Olweus (1991, 1994) reported that bullying could occur both in and out of school, but is most prevalent in school settings. Bullies are aggressive to their victims but are also aggressive to other children in general and even to adults. Bullies are more likely to exhibit impulsiveness, lower levels of empathy, and lower levels of anxiety than nonbullies. Many bullies are on the trajectory of antisocial behavior development.

Bullies can use a variety of verbal/physical/psychological techniques or behaviors to accomplish their bullying acts. Bullying boys use physical intimidation, while bullying girls use verbal or psychological intimidation. Boys' physically aggressive behaviors decline as they get older, but their verbally aggressive behaviors increase (Craig, 1998); girls' verbal and psychological intimidation stays fairly stable across developmental periods.

Some children end up being both bullies and victims. These children have significant psychological disturbances, exhibit a variety of externalizing and internalizing psychological problems, and are often referred for psychiatric services (Kumpulainen et al., 1998).

Violence

Childhood aggression and acts of violence can be related but are not necessarily synonymous. Loeber and Stouthamer-Loeber (1998) summarized much of the literature on childhood aggression and violence. They discuss a continuum of severity that distinguishes between aggression and violence. Aggression involves a pattern of actions that inflicts mild to moderate physical or mental harm on others. Violence involves an act or pattern of actions that inflicts serious physical harm on others, including assault, rape, robbery, and murder. Not all aggressive children are violent, and not all violent children display long-standing patterns of aggression. It is true, however, that children with early aggression are at risk to commit violence. The more risk factors that a child has (see Chapter 2), the more likely it is that the child will display violence (Loeber & Stouthamer-Loeber, 1998; Verlinden, Hersen, & Thomas, 2000).

Covert Stealing and Firesetting

Covert antisocial behaviors are actions that violate conventional social norms—for example, lying, cheating, smoking, drinking, disobeying, truancy, and so on. In preadolescent children the most common serious forms of covert antisocial behaviors are stealing and firesetting. The incidence rates for these behaviors are less than for forms of aggression. These behaviors are also less well studied than aggression.

Patterson's (1982) research showed that children who steal on a regular and frequent basis are likely to develop later adolescent delinquent behavior. Children who steal and are aggressive have the most problems and are especially at risk for later delinquency. Often the parents of children who steal are ineffective in discipline and do not adequately monitor their children's whereabouts and actions.

Kolko (1996) distinguished between children who set fires with the intent of harming others/destroying property and children who "play" with fire resulting in accidentally harming others/destroying property. The intentional firesetting children are more maladjusted. Firesetting children usually have social interaction difficulties and emotional problems. They commonly come from families who experience multiple problems and adversity. Their parents do not adequately supervise them and have not provided consequences for earlier firesetting behaviors.

Child Delinquency

Delinquency is a legal term applied to children who have committed a crime serious enough to warrant involvement in the juvenile correctional system (Kazdin, 1995). Loeber and Farrington (2000) defined a child delinquent as a child between the ages of 7 and 12 years who has committed a crime. Child delinquents engage in a variety of offenses, including assault, rape, vandalism, firesetting, robbery, theft, and other antisocial acts. About 10% of children who are charged with such offenses are under 12 years of age. Boys are about three times more likely than girls to be designated as child delinquents.

Child delinquents can be further classified as "serious" and "other" (Loeber & Farrington, 2000). The serious child delinquents display a pattern of delinquent actions across time, whereas other child delinquents may engage in an offense but eventually curb that behavior. Obviously, the serious child delinquent is more impaired and is more likely to come from a background with many risk factors.

Psychopathy

Psychopathic children exhibit aggression, as well as risk-taking and sensation-seeking behavior (Lynam, 1996). These children are egocentric and self-centered. They tend to be emotionally shallow, have diminished capacity for empathy, and express little remorse for their misdeeds. Children identified as psychopathic also tend to be hyperactive and impulsive, and have internalizing emotional problems (Lynam, 1997, 1998).

Callous/unemotional traits are likely the most salient characteristics in psychopathic children (Frick, 1998a; Frick, Barry, & Bodin, 2000). They are manipulative, experience minimal guilt, and also manifest low levels of emotional distress or anxiety. Children who exhibit callous/unemotional characteristics typically exhibit higher levels of aggression, and also have contacts with police early on, as compared to children with impulsivity/conduct problems and those without conduct problems (Christian, Frick, Hill, Tyler, & Frazer, 1997). Children exhibiting callous/unemotional traits are more likely to be classified as psychopaths, whereas children with impulsivity/conduct problems are more likely to be classified as exhibiting "traditional" conduct disorder (Frick, O'Brien, Wooton, & McBurnet, 1994). Impaired/ineffective parenting is associated with children who are impulsive and have the more common form of conduct problems. This type of parenting is not, however, associated with children who are callous/unemotional (Wooton, Frick, Shelton, & Silverthorn, 1997).

The overall applicability of the term *psychopathy* to children has not been fully determined at this time (Frick et al., 2000). It has not yet been extensively studied in children. When it has been studied, the samples are primarily comprised of boys. The findings discussed in this section need to be replicated across other studies and research groups. It is also important for researchers to obtain longitudinal information that relates to psychopathy in children. The concept of psychopathy in children, however, may have broad implications for assessment and intervention.

Empirically Derived Subtypes

Loeber and Schmaling (1985) used meta-analysis, a statistical procedure in which the results of many studies are combined, to determine trends across studies pertaining to children with ACP. They examined the data from 28 studies. The meta-analysis revealed one dimension that accounted for most of the statistical variance: a continuum ranging from overt to covert manifestations of conduct problems. The overt end of the continuum described children who exhibited arguing, temper outbursts, fighting, and other forms of overt aggression. The covert end of the continuum described children who engaged in stealing, truancy, firesetting, and the like. The middle of the continuum described children who displayed disobedience/defiance, rule-breaking behavior, and so on. Loeber and Schmaling noted that the overt, covert, and disobedient clusters of behavior were unique in and of themselves, but also highly intercorrelated.

Frick and colleagues (1993) conducted another meta-analysis of 44 studies that comprised a total sample size of more than 28,000 children and adolescents. Frick and colleagues replicated the overt/covert continuum and found another continuum that described destructive versus nondestructive behavior. Table 1.1 summarizes the results of the Frick and colleagues meta-analysis. This table lists the four conduct disturbance subtypes that emerged in the meta-analysis, associated dimensions, and the characteristics of children within the subtypes. Frick and colleagues argued that the oppositional subtype corresponds to the American Psychiatric Association's (1994) diagnostic category of oppositional defiant disorder, while the ag-

TABLE 1.1. Summary of Meta-Analysis Including Subtypes, Associated Dimensions, and Child Characteristics

Oppositional subtype (overt, nondestructive)

- Stubborn
- Annoys
- Angry
- Defies
- Temper
- Touchy

Aggression subtype (overt, destructive)

- Blames others
- Assaults
- Bullies
- Fights
- Cruel
- Spiteful

Property violations subtype (covert, destructive)

- Firesetting
- Stealing
- Lying
- Vandalism
- Cruelty to animals

Status violations subtype (covert, nondestructive)

- Runaway
- Truancy
- Substance use
- Swears
- Breaks rules

Note. Data from Frick et al. (1993).

gressive, property violations, and status violations subtypes correspond to the diagnostics category of conduct disorder.

Summary

Many specific dimensions or characteristics can be used to describe children with ACP. They pertain to forms of aggression, covert conduct problems, and combinations of these difficulties. Although there is overlap, the distinctiveness of the different dimensions are meaningful and relevant to practice. Assessment methods need to be employed that identify the presence of specific characteristics in a child or group of children so that the best intervention can be employed to address them. For example, if a child is exhibiting reactive aggression, then a social competence training intervention might be utilized, or if oppositional behaviors are a concern for another child, then parent and family skills training might be called for. Our later discussion of assessment and intervention methods will suggest different procedures that take these dimensions into account.

DIAGNOSTIC CATEGORIES OF DISRUPTIVE BEHAVIOR

Diagnostic categories of disruptive behavior provide another perspective in describing the problems of children with ACP. Whereas the dimensions just reviewed relate primarily to unique characteristics, diagnostic categories involve the clustering of symptoms to form broader descriptors of children's functioning. The resulting diagnosis describes broad patterns of maladjustment in children, which are linked to various mental health treatments. The American Psychiatric Association's (1994) *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (DSM–IV), aids professionals involved in diagnostic and treatment activities with people. It contains disruptive behavior diagnostic categories that relate to patterns of aggression and conduct problems in children, as well as difficulties related to attention deficits/hyperactivity/impulsivity.

According to DSM–IV, several criteria must be met to qualify for a behavior disorder diagnosis. A child must exhibit a cluster of symptoms and behaviors for a specified period of time. These behaviors must be evident at a level that is developmentally inappropriate and must be directly related to the child having functional difficulty in several settings (typically home and school). Children as young as preschool age can be diagnosed reliably as manifesting behavior disorders (Keenan & Wakschlag, 2000; Lahey et al., 1998). Table 1.2 presents Quay's (1999) abridged summary of oppositional defiant disorder (ODD), conduct disorder (CD), and attention-deficit/hyperactivity disorder (ADHD) according to DSM–IV. Although there is overlap between the three behavior disorder diagnostic categories, they are considered to have distinct features that warrant the different diagnostic labels (Loeber, Burke, Lahey, Winters, & Zera, 2000).

Oppositional Defiant Disorder

The DSM–IV diagnostic category of ODD describes children who exhibit persistent developmentally inappropriate levels of anger, irritability, defiance, and oppositionality, which causes functional impairment. A child who qualifies for this diagnosis must exhibit the symptoms persistently for at least 6 months and the symptoms must cause functional impairment. It is noteworthy that elements of verbal aggression are included in the diagnosis of ODD and that some children with ODD also display physically aggressive behavior (Loeber, Burke, et al., 2000). An early history of ODD is often present in children later classified as CD (Kazdin, 1995; Loeber et al., 1993). ODD emerges earlier (average age of onset is 6 years) than childhood-onset CD (average age of onset is 9 years) (Hinshaw & Anderson, 1996). Most children are diagnosed with ODD during the preadolescent years.

Conduct Disorder

The DSM–IV category of CD pertains to children who manifest overt and covert antisocial behavior. Age of onset has been found to predict ultimate outcome (Moffitt, 1993), so DSM–IV reflects this knowledge in distinguishing between the childhood-onset and the adolescent-onset subcategories of CD. To qualify for a diagnosis of either childhood-onset or adolescent-onset CD, a child must exhibit persistent aggressive and/or antisocial behavior for at least 6 months and the behavior must cause functional impairment.

Children manifesting childhood-onset CD are typically more aggressive, exhibit more functional impairments, and have more temperamental, cognitive/neuropsychological, family history, family environment, and social problems than children with adolescent-onset CD (Kazdin, 1995; Lahey et al., 1998; Moffitt & Caspi, 2001). The prognosis for childhood-onset CD is poor. Boys, more than girls, are likely to qualify for a diagnosis of childhood-onset CD. The adolescent-onset CD is less severe, and tends to coincide with family and peer problems emerging during the adolescent years. Aggression may or may not be present in adolescent-onset CD. Adolescent-onset CD has a better prognosis. Girls equal boys for prevalence rates of adolescent-onset CD.

Attention-Deficit/Hyperactivity Disorder

The final behavioral disorder category in DSM–IV is ADHD. Although ADHD does not necessarily involve aggression or conduct problems, it is

TABLE 1.2. Abridged Summary of Symptoms Associated with DSM–IV Oppositional Defiant, Conduct, and Attention-Deficit/Hyperactivity Disorders

Oppositional defiant disorder

- Often loses temper
- Often argues with adults
- Often actively defies or refuses to comply
- Often deliberately annoys people
- Often blames others
- Often touchy or easily annoyed
- Often angry or resentful
- Often spiteful or vindictive

Conduct disorder

- Aggression to people and animals
  - Bullies, threatens, or intimidates
  - Initiates physical fights
  - Has used a weapon
  - Physically cruel to people
  - Physically cruel to animals
  - Has stolen while confronting victim
  - Forced sexual activity
- Destruction to property
  - Firesetting with intent to damage
  - Destroys others' property
- Deceitfulness or theft
  - Breaking into house, building, or car
  - "Cons" others
  - Stealing without confrontation
- Serious violations of rules
  - Stays out at night beginning before age 13
  - Runs away from home overnight at least twice
  - Truant from school before age 13

Attention-deficit/hyperactivity disorder

- Inattention
  - Fails to give close attention to detail; careless mistakes
  - Difficulty sustaining attention
  - Does not seem to listen when spoken to
  - Does not follow through; fails to finish
  - Difficulty organizing
  - Avoids, dislikes tasks requiring sustained mental effort
  - Often loses things
  - Easily distracted
  - Forgetful
- Hyperactivity
  - Fidgets, squirms
  - Leaves seat
  - Runs about or climbs excessively
  - Difficulty playing quietly
  - Often "on the go"
- Impulsivity
  - Blurts out answers
  - Difficulty awaiting turn
  - Interrupts or intrudes on others

Note. Data from Quay (1999).

commonly diagnosed in individuals with these characteristics, and it relates to increased severity of dysfunction. ADHD indicates persistent developmentally inappropriate levels of inattention, hyperactivity, and impulsivity, which cause functional impairment in the child. Symptoms of ADHD must be manifest and cause functional impairment prior to age 7. DSM–IV makes distinctions between different subtypes of ADHD. The primarily inattentive type is associated with difficulties in sustaining attention, disorganization, carelessness, off-task behavior, distractibility, and forgetfulness. ADHD, primarily inattentive type may not be a disruptive behavioral disorder category (Barkley, 1998; Lahey, Schaughency, Hynd, Carlson, & Nieves, 1987; Lahey, Schaughency, Strauss, & Frame, 1984). ADHD, primarily inattentive type may be associated with sluggish cognitive style and learning disabilities. Another ADHD subtype, primarily hyperactive/impulsive, indicates excessive motor movement and verbal/behavioral indicators of impulsivity. It is the hyperactive/impulsive symptoms that are more indicative of disruptive behavior. A third subtype of ADHD is the combined type where a child exhibits symptoms of inattention and hyperactivity/impulsivity. Although boys are more often diagnosed with ADHD, when girls are diagnosed, they tend to have similar symptoms and severity in overall functional impairment (Silverthorn, Frick, Kuper, & Ott, 1996).

Prevalence Rates of Behavior Disorders

Lahey, Miller, Gordon, and Riley (1999) summarized 34 epidemiology studies of prevalence rates of behavioral disorders in the general population for children ages 4–18 years in the United States and other countries. The research they reviewed was derived from child, peer, parent, and teacher sources and utilized dimensional ratings and diagnostic interview methodologies. Lahey and colleagues organized dimensional and interview data to conform to the diagnostic categories of ODD, CD, and ADHD in order to facilitate and simplify presentation of prevalence rates information. Although they noted methodological problems in these studies, they offered some basic conclusions regarding prevalence rates. For boys and girls combined, the following prevalence rates were observed:

- ODD: range = 3–22.5%; median = 3.2%
- CD: range = 0–11.9%; median = 2.0%
- ADHD: range = 0–16.6%; median = 2.0%

These statistics suggest that a fairly high proportion of the general population of children manifest these behavioral disorders. Lahey and colleagues also found that a majority of studies revealed a high rate of comorbidity across the categories and a higher prevalence rate for boys than for girls. There is no clear pattern of prevalence rates being more or less for different race/ethnic groups. Most studies find no age differences in prevalence rates for ODD. The prevalence of CD increases from elementary school age to adolescence (although children are less overtly aggressive and more covertly antisocial as they get older). Rates of ADHD increase from preschool- to elementary school-age years, and decline somewhat in adolescence.

Lahey et al. also observed different prevalence rates with respect to family and contextual factors. In general, there are higher prevalence rates of all three disruptive behavior disorder categories in families with single parents, frequent change of parental figures, parents who have psychopathology (e.g., depression, antisocial behavior) and/or substance abuse, marital problems, and parents who have poor parenting skills. There is also a higher rate of behavior disorders in economically disadvantaged populations. Higher rates of CD are observed in disadvantaged neighborhoods (e.g., with dilapidated housing, high crime rates, rundown schools). These family and contextual variables, and their association with children's behavior problems, will be expanded on in Chapter 2.

Comorbidity and Behavior Disorders

The comorbidity of ODD/CD with ADHD, as well as overlap between dimensional characteristics of overt/covert antisocial behavior and impulsive/hyperactive behavior, is commonly seen in children reporting for mental health services (Hinshaw & Anderson, 1996). Children with CD/ADHD exhibit greater functional impairment than children with CD only (Walker, Lahey, Hynd, & Frame, 1987). CD/ADHD in children is more difficult to treat and has a poorer long-term prognosis than CD alone or ADHD alone (Hinshaw, Lahey, & Hart, 1993). Comorbidity between ODD/CD and ADHD is somewhat higher in urban areas than in suburban middle-class settings, presumably because fewer social family risk factors are implicated in the suburban population (August, Realmuto, MacDonald, Nugent, & Crosby, 1996). A combination of hyperactive/impulsive/attention deficit symptoms with conduct problems has been associated with very significant social/academic functional problems in children (Gresham, MacMillan, Bochian, Ward, & Forness, 1998). ADHD, CD, and ADHD/CD combined should be considered as three unique entities each requiring different treatment modalities (Schachar & Tannock, 1995).

"Internalizing" emotional problems such as depression and anxiety occurs at a higher rate among children and adolescents with ODD/CD and with ADHD/CD than in the general population of children (Eiraldi, Power, & Nezu, 1997; Loeber, Burke, et al., 2000; Moffitt, 1993). Children with anxiety problems combined with ADHD and/or ADHD/ODD/CD present with more significant problems and are harder to intervene with than children presenting with any of those disorders separately. The relationship between CD and anxiety is moderated by whether or not the child exhibits callous/unemotional traits. Frick, Lilienfeld, Ellis, Loney, and Silverthorn (1999) found that some children with CD also have problems with anxiety; among these children, those with callous/unemotional traits (i.e., psychopathy) displayed lower anxiety. More research is needed to definitively describe the relationship between behavior disorders and internalizing problems and the ramifications of this association.

Recently, much has been written pertaining to bipolar disorder and behavioral disorders in children. Geller and Luby (1997) described childhood-onset bipolar disorder as different than the adulthood-onset type. In children, bipolar disorder is manifested by a rapid, chronic, and continuous cycling of mood between elated and irritable affects. Children with bipolar disorder display erratic behavior that can appear similar to, or be seen in combination with, CD or ADHD (Biederman, Faraone, Chu, & Wozniak, 1999; Biederman et al., 1997). Making an accurate diagnosis of bipolar disorder in children is challenging because the symptoms of bipolar disorder are similar to those seen in the behavior disorders. Unfortunately, some children with bipolar disorder are misdiagnosed as children with CD and/or ADHD. Other children with bipolar disorder may have comorbid CD and/or ADHD. It should be noted that it is rare to diagnose bipolar disorder as the only disorder in children (Carlson, 1998). According to DSM–IV, the criteria for adult bipolar disorder must be met to make the diagnosis in children. Careful diagnosis is important because bipolar disorder is considered primary to other possible diagnoses (Biederman et al., 1999). Although there are no prevalence rates available for children, only 1–2% of the adult population has bipolar disorder. Therefore bipolar disorder in children is probably rare.

The relationship between CD and intelligence is somewhat controversial. Most researchers have concluded that there are no IQ differences between children with and without CD when socioeconomic status (SES) or presence of ADHD is controlled (Hogan, 1999; Kazdin, 1995). Others have taken a different stance. Loeber, Farrington, Loeber-Stouthamer, Moffitt, and Caspi (1998) summarized several studies from the Pittsburgh Youth Study that examined the link between delinquency (including aggression) and IQ. Loeber and colleagues found an 8-point IQ difference between the delinquent and nondelinquent school-age boys. Even after controlling for social class, race, validity of test administration, neighborhood, and levels of impulsivity, the IQ differences between the delinquent and the nondelinquent groups did not change appreciably. Loeber et al. argued that differences in IQ are real and may account for delinquent behavior to some extent. Loeber et al. suggested that low IQ boys may become frustrated at school due to experiencing academic failure, which then can lead to increased levels of delinquency. The link between CD/delinquency and IQ needs further research.

Mental retardation and aggressive behavior coincide in some children.

Mental retardation is defined as an individual exhibiting an IQ score below 70 with corresponding deficits in adaptive functioning. Self-injurious behavior and physical aggression is related to mental retardation in children and adolescents to some extent (Davidson et al., 1996). Mentally retarded aggressive children are described as more impulsive and as having more social/anxiety problems (Bihm, Poindexter, & Warren, 1998). Certainly the occurrence of both mental retardation and aggressiveness in children presents daunting challenges for intervention efforts.

The combination of reading/academic problems and ADHD or ADHD/CD is frequently observed in children. Research suggests that ADHD symptoms are more strongly related to reading/academic problems than are CD symptoms (Frick et al., 1991; Hinshaw, 1992a; Maguin & Loeber, 1996; Smart, Sanson, & Prior, 1996). Reading problems and CD can overlap, but usually reading problems precede the development of CD. The combination of ADHD/CD/reading problems has a very poor prognosis (Fergusson & Lynskey, 1997; Moffitt, 1993). Among children with reading problems, boys are more likely than girls to have behavior problems (Smart et al., 1996).

The comorbidity of CD and substance abuse is seen in middle school children and adolescents. Early-onset ADHD/CD has been associated with later development of adolescent substance abuse (Thompson, Riggs, Mikulich, & Crowley, 1996). The combination of CD and depression has also been strongly related to substance use and abuse in adolescents (Henry et al., 1993). Conduct problems have emerged as a stronger predictor of adolescence substance abuse than depression (Miller-Johnson, Lochman, Coie, Terry, & Hyman, 1998). ADHD/CD in middle school children is associated with substance use and abuse; impulsive/hyperactive symptoms are primarily responsible for this association (Molina, Smith, & Pelham, 1999).

Practitioners need to understand comorbid conditions to plan and implement effective interventions (Abikoff & Klein, 1992). Generally speaking, the more a child exhibits comorbidity, the more challenging the treatment will be. Children who have severe behavior problems with other comorbid conditions, for example, typically have severe levels of global impairment and present significant intervention challenges (Lambert, Wahler, Andrade, & Bickman, 2001; Shelton et al., 1998; Stormshak, Bierman, & Conduct Problems Prevention Research Group, 1998).

Summary

Some children exhibit multiple behavior problem symptoms, which adversely effects their functioning in several settings, thereby warranting a DSM–IV diagnosis of ODD, CD, and/or ADHD. These children often display other comorbid conditions too. Assessment procedures that derive diagnoses and interventions that lessen symptoms and functional problems must be used. For example, a child diagnosed as CD/ADHD might benefit from a mental health intervention, while a child with comorbid reading deficits might gain from an educational intervention. The relevance of diagnostic considerations and comorbidity to assessment and intervention efforts for these children will be expanded upon later in this book.

HETEROGENEOUS NATURE OF CHILDREN WITH AGGRESSION AND CONDUCT PROBLEMS

Thus far we have described the varied characteristics and diagnostic catagories associated with children who display ACP. Table 1.3 offers a summary of this information. It reveals that this is a heterogeneous population of children, although one with a commonality of broad aggression and conduct problems. This heterogeneity is important to keep in mind because of its implications for interventions. It is necessary to understand the characteristic differences within the group of children who manifest ACP in order to design and implement effective interventions.

The heterogeneity of children with ACP adds to the challenge of intervention. For example, at one elementary school there may be a group of children who display broad aggression and conduct problems. Within this group of children some children may display overt aggression, while others may show relational aggression or stealing, and so on. Within this group of children there may be some who are diagnosed as CD, others who are diagnosed as CD/ADHD, still others who are CD with reading problems, and so on. Interventions at this elementary school will need to address the common characteristic of the group of children who manifest aggression and conduct problems but also take into account their differences. Table 1.3 can assist in pinpointing intervention targets for these children.

DEVELOPMENTAL PROGRESSION OF CHILDREN WITH AGGRESSION AND CONDUCT PROBLEMS

In this section we review the developmental progression for children with persistent ACP. We will discuss normal development, the general development of aggression and conduct problems, and specific pathways within the general model. In addition, we will present information regarding the desistance and persistance of these problems. This information will form a foundation for our later presentation of intervention information.

The concept of a developmental pathway must first be reviewed to serve as a foundation for this discussion. A developmental pathway describes the process of adaptation for a child moving toward a developmental outcome (Cummings et al., 2000; Sroufe, 1997). It has to do with the

TABLE 1.3. Characteristics and Associated Behaviors of Children Manifesting Forms of Aggression and Conduct Problems

Characteristic	Associated behaviors
Dimensions	
Overt aggression	Harmful verbal and physical actions
Reactive aggression	Angry and hostile reactions
Proactive aggression	Intentional and planned actions
Relational aggression	Intentional and manipulative actions to damage relational status
Bullying	Physical and verbal actions that harm and/or intimidate
Violence	Single act or pattern of actions that inflict serious physical harm
Covert stealing and firesetting	Serious stealing and/or firesetting
Psychopathy	Aggressive and/or antisocial actions with callous/unemotional traits
Child delinquency	A pattern of serious criminal behavior
Oppositional empirical subtype	Arguing, defiance, etc.
Aggressive empirical subtype	Verbal and physical aggression
Property violations empirical subtype	Vandalism, stealing, firesetting, etc.
Status violations empirical subtype	Swearing, truancy, substance use, etc.
DSM-IV disruptive behavior disorder categories	
Oppositional defiant disorder	Persistent oppositional/defiant actions
Conduct disorder	Persistent aggressive/antisocial actions
Attention-deficit/hyperactivity disorder	Persistent hyperactivity/impulsivity with or without inattention
Possible comorbid conditions	
ODD/CD/ADHD	One or more disruptive behavior disorders
Anxiety and/or depression	Distressed and/or dysphoric
Bipolar disorder	Rapid, chronic, and continuous cycling of mood
Lower intelligence	Limited adaptive functioning
Reading/academic problems	Academic delays
Substance use/abuse	Use that impairs functioning
Gender differences	
Boys	More overt actions
Girls	More relational actions
Nonnormative	Boys who display high relational actions and girls who display high overt actions

Note. Children with aggression and conduct problems may display one or more of these characteristics.

level of mastery that a child achieves with successive tasks in the social, emotional, cognitive, and physiological domains of functioning. The *early-onset continuous adaptive pathway* is observed when a child is exposed to minimal levels of risk and displays early competence or adjustment that persists over time (e.g., "normal"). The *early-onset continuous maladaptive pathway* is seen when a child is exposed to varying levels of risk (low to high) and displays early maladjustment that persists and intensifies over time (e.g., early-onset ACP). The *resilient pathway* occurs when a child is exposed to varying levels of risk and displays early maladjustment that eventually transitions to adjustment or to an adaptive pathway (e.g., the "resilient child"). The *late-onset maladaptive pathway* is manifested when a child is exposed to varying levels of risk and displays early adjustment that eventually transitions to maladjustment or to a maladaptive pathway (e.g., late-onset CD). There can be many variations of these four main developmental pathways; level of adjustment can also vary across developmental domains (e.g., an individual can be resilient in the social domain and maladjusted in the emotional domain). Specific examples of these types of developmental pathways are provided next. Later we present practice methods that could be used to assist children with ACP in moving from the early-onset maladaptive pathway to the resilient adaptive pathway.

Normal Development

To understand the development of ACP, one must first understand "normal" development. This will enable a comparison between the normal and the ACP developmental pathways. Normal children proceed down an early-onset continuous adaptive developmental pathway and achieve competence. These children acquire mastery of tasks at different stages of development. Table 1.4 from Masten and Coatsworth (1998) summarized a variety of self-control, social, emotional, and academic/career tasks negotiated by most children before adulthood. These tasks are defined by contemporary culture and society. Children master earlier tasks to progress to later tasks. Children eventually go through all stages of development to achieve competence in adolescence and childhood. Competence is defined as effective adaptation and mastery.

General Developmental Model of Aggression and Conduct Problems

Young children who display early-onset ACP have been characterized as "early starters" (Patterson, Capaldi, & Bank, 1991), "life-course persistent" (Moffit, 1993), or "early-onset/persistent" (Aguilar, Sroufe, Egeland, & Carlson, 2000) because they are developing early maladaptive characteristics that often lead to the continuation and escalation of their problems. These children are not mastering developmental tasks and are traveling

TABLE 1.4. Normal Developmental Progression of Children

Infancy to preschool

- Attachment to caregivers(s)
- Language
- Differentiation of self from environment
- Self-control and compliance

Middle childhood

- School adjustment (attendance, appropriate conduct)
- Academic achievement (learning to read, do arithmetic)
- Getting along with peers (acceptance, making friends)
- Rule-governed conduct (following rules of society for moral behavior and prosocial conduct)

Adolescence

- Successful transition to secondary schooling
- Academic achievement (learning skills needed for higher education work)
- Involvement in extracurricular activities (e.g., athletics, clubs)
- Forming close friendships within and across gender
- Forming a cohesive sense of self-identity

Note. From Masten and Coatsworth (1998). Copyright 1998 by the American Psychological Association. Reprinted by permission.

down the early-onset continuous maladaptive developmental pathway. A tremendous amount of research documents the developmental course of children who manifest early-onset ACP. Numerous longitudinal studies have examined the persistence of this problem and how it can escalate and elaborate over time. These studies include boys (primarily) and girls, from varying ethnic backgrounds, derived from both community and clinical samples. We will rely on contemporary reviews of the literature and summaries of specific research programs to present five stages of general development of ACP in children (Campbell, 1995; Frick & Loney, 1999; Kazdin, 1995; Keenan, Shaw, Delliquadri, Giovannelli, & Walsh, 1998; Loeber & Hay, 1997; Loeber & Stouthamer-Loeber, 1998; Olweus, 1979; Patterson et al., 1991). Although these literature reviews utilize slightly different definitions of problems and review slightly different studies, they arrive at similar conclusions regarding general patterns that emerge across development. Table 1.5 summarizes our interpretation of this information in an effort to present a general developmental progression for children with ACP.

Infancy and toddlerhood (birth–2 years) appears to be a stage of activation for ACP development. Children at this age may manifest a difficult temperament and be characterized as irritable, difficult, angry, and easily frustrated. They likely show early symptoms of tantrums and defiance. Few gender differences exist in the types of aggression seen during this period.

The preschool period (3–5 years) is a stage of acceleration where problems become magnified and more entrenched. Tantrums, argumentativeness, and defiance persist, but now elaborate to include aggressive actions. Differences in the types of aggression emerge at this period. Boys show higher base rates of overt aggression. Relational aggression becomes characteristic of girls. Some girls do, however, show overt aggression during this period. Impulsivity/disinhibition may be seen in some children. Coercive parent–child interactions occur.

The early elementary school years (6–8 years) are a time of stabilization with some elaboration of problems. Overt aggression and defiance persists. Those children who manifest early-onset aggressive behavior are at risk for developing covert antisocial behaviors such as stealing, lying, sneaking, and the like. Some children will show signs of both overt and covert symptoms. Coercive parent–child interactions persist; teacher–child interactions may become coercive at school. It is at this stage that children with ACP may experience rejection from prosocial peers and begin to affiliate with aggressive and antisocial peers. They may have early experiences with school failure and become alienated from the school. Children manifesting overt aggressive symptoms display atypical social information-processing biases and deficits.

The later elementary and middle school years (9–14 years) are a time of continued elaboration. Although the frequency of overt aggressive behavior declines during this period, it remains higher than the norm. When older children do display aggressive behavior, it is often more violent. Covert behaviors appear to increase, including vandalism, skipping school, firesetting, substance use/abuse, and so on. Antisocial peers begin to reinforce each other's overt and covert antisocial behavior, especially during the teen years. Coercive parent–child and teacher–child interactions can persist. Children still require supervision and monitoring during these years, yet their parents may lack these parenting skills. Family conflict may develop as a result of these ongoing problems.

Adolescence and adulthood (15+ years) is a time of crystallization. Children tend to exhibit more covert than overt antisocial actions, but some commit violence. Guns and other weapons may be utilized during violent acts. Organized gangs develop during this period; boys more often than girls are involved in these gangs, but girls do affiliate with them. Covert actions move into the arena of serious crime. Cross-gender aggression emerges with some boys engaging in coercive and/or violent behavior while dating girls. Sexual intercourse base rates are higher for children with ACP at this time, and there is a higher likelihood of teenage pregnancy. Previous experimentation with substance use can magnify into a substance abuse problem. It is estimated that approximately one-third of children with early-onset ACP go on to develop adult antisocial personality disorder. The remaining individuals often have adult functional problems such as unemployment, marital difficulty, violence, psychopathology, and criminal histories.

TABLE 1.5. General Developmental Progression of Children with Aggression and Conduct Problems

Infancy and toddlerhood (0–2 years)

- Difficult temperament, including being irritable, difficult, easily frustrated, angry, and hard to soothe
- Early tantrums and defiance
- Few gender differences in behavior

Preschool (3–5 years)

- Tantrums, defiance persist
- Aggressive actions develop
- Gender differences emerge, including relational aggression for girls
- Impulsivity/disinhibition seen in some children
- Coercive interactions with parent

Early elementary school (6–8 years)

- Overt, covert, or combined behaviors observed
- Coercive interactions with peers and teachers
- Social problems seen in some children
- Negative peer reputation seen in some children
- School problems seen in some children
- Information-processing biases and deficits are manifest in some children

Later elementary and middle school (9–14 years)

- Overt behaviors decline (but remain higher than normal), while covert behaviors increase
- Substance use and/or abuse seen in some children
- Peer, family, and school problems

Adolescence and adulthood (15+ years)

- Covert actions are predominant, except for a subset of violent individuals
- Covert actions involve serious crime
- Cross-gender violence emerges
- High rates of intercourse and pregnancy
- Serious substance abuse problems
- Antisocial personality and/or lifetime functional problems for some adults

Note. "Early starter" boys and girls can follow a similar developmental progression, although girls may display covert conduct problems somewhat later than boys.

Specific Developmental Pathways of Aggression and Conduct Problems

Children with ACP can take one or more pathways to the same developmental destination (i.e., equifinality). What follows is a discussion of specific developmental pathways of children with ACP. The longitudinal research we review in this section examines the subtly different steps children take toward serious forms of ACP and related difficulties.

Proceeding from early overt (primarily aggressive) maladjustment to later covert (delinquency/conduct problems) maladjustment has been observed in boys (Patterson, Forgatch, Yoerger, & Stoolmiller, 1998; Tremblay, Masse, Vitaro, & Dobkin, 1995), and in boys and girls combined (Stanger, Achenbach, & Verlhulst, 1997). Children following this pathway display early aggression, which leads to increased covert conduct problems and delinquency in later years. Although the base rates for aggressive behaviors decline over time, they are still higher than normal for these children throughout development. A subgroup of children continue to display high levels of overt problems along with covert problems in their later years. Although boys exhibit a higher level of overt aggressive behavior and covert conduct problems than do girls, the developmental pattern is similar for both boys and girls (Stanger et al., 1997). Family adversity and parent practices are strongly linked to this developmental trajectory.

Another pathway goes from overt (aggressive) maladjustment to substance abuse. Boys (Dobkin, Tremblay, Masse, & Vitaro, 1995) and boys and girls (Brook, Whiteman, Finch, & Cohen, 1996) who manifest early-onset overt aggressive and hyperactive behaviors are at significant risk to develop into substance-abusing adolescents and young adults. Earlier significant behavioral problems appear to be a strong predictor of later substance abuse outcomes. Association with antisocial peers mediates the relationship between early aggression and adolescent substance use (Brook et al., 1996; Dobkin et al., 1995).

Kokko and Pulkkinen (2000) found that manifestation of aggression at age 8 predicted long-term unemployment at age 36. A developmental pathway emerged, revealing that the aggressive 8-year-olds displayed school maladjustment at age 14, problem drinking and lack of occupational alternatives at age 27, and chronic unemployment at age 36. Poor parenting and self-control problems in children were related to this developmental progression.

The progression from early ADHD to later antisocial behavior has been demonstrated under certain conditions. Generally, "pure" ADHD (without comorbidity) is not related to the development of later conduct problems and antisocial behavior in children (Barkley, 1998; Loeber et al., 2000; Nagin & Tremblay, 1999). Notably, the early presence of ADHD by itself is not a strong predictor of adolescent substance abuse (Loeber, Stouthamer-Loeber, & White, 1999). Comorbid aggression/defiance/antisocial symptoms are better predictors of later maladjustment in individuals with ADHD (Nagin & Tremblay, 1999; Patterson, DeGarmo, & Knutson, 2000). Children with comorbid ADHD and CD generally exhibit an earlier onset of behavioral problems than children with CD only (Loeber, Burke, et al., 2000). Children with ADHD/CD typically have parents who are ineffective and coercive in discipline (Patterson et al., 2000).

Frick and colleagues (1993) found that the four empirically derived subtypes discussed earlier (see Table 1.1) were characteristic of children at different ages. Starting at about age 6, the oppositional subtype was most prevalent. The aggression subtype was most evident at about age 6.75 years. The property violations subtype was observed most often at about 7.25 years. Finally, the status violations subtype was typically observed when children were age 9 years. Although cause and effect cannot be determined, this cross-sectional data suggests that children may progress from oppositional/aggressive overt behaviors to property violations/status violations covert behaviors.

Multiple pathways have been explored as they relate to boys' development. Loeber and colleagues (1998) summarized the Pittsburgh Longitudinal Study, which examined the developmental trajectory of boys across 10 years who began the study during the first, fourth, or seventh grades. Loeber and colleagues found that boys can go down one of three possible developmental pathways, which are summarized in Figure 1.1. In terms of age of onset, the earliest pathway appears to be "authority conflict," where boys move from being stubborn, to defiant, to having authority avoidance difficulties. The second "overt" pathway involves boys moving from minor aggression, to fighting, to more severe levels of aggression. The third "covert" pathway has to do with boys moving from minor covert actions, to property damage, to delinquency. Boys can go down one or more pathways at any one particular point in their development. Family and parenting factors were found to be the strongest predictors of persistence of various forms of behavior in the Pittsburgh Longitudinal Study.

In a similar fashion, Nagin and Tremblay (1999) reported on multiple pathways. They observed that some elementary school-age children with ACP proceeded from being oppositional to exhibiting covert delinquency in adolescence. Another pathway was for elementary school-age children with early-onset ACP to exhibit overt aggression and then move to overt (violent) delinquency in adolescence.

Finally, Frick and colleagues (2000) speculated that there may indeed be two childhood onset pathways in the antisocial trajectory of development. The first pathway is the impulsive conduct problem *without* callous/unemotional traits pathway. It could be that children in this pathway have parenting problems, lower IQ scores, and hostile attributions that develop because of growing up in an abusive family situation. These children may exhibit an overactive/impulsive temperament style. The second pathway is the conduct problem *with* callous/unemotional traits pathway. Biological processes may be implicated as a cause for these children's difficulties. Children going down this pathway are described as disinhibited, fearless (low anxiety), thrill seeking, insensitive to punishment, and unresponsive to parenting efforts. Both of these pathways can lead to conduct problems, but Frick et al. hypothesized that children going down the callous/unemotional pathway have a poorer prognosis.

Earlier we pointed out that there is characteristic heterogeneity among

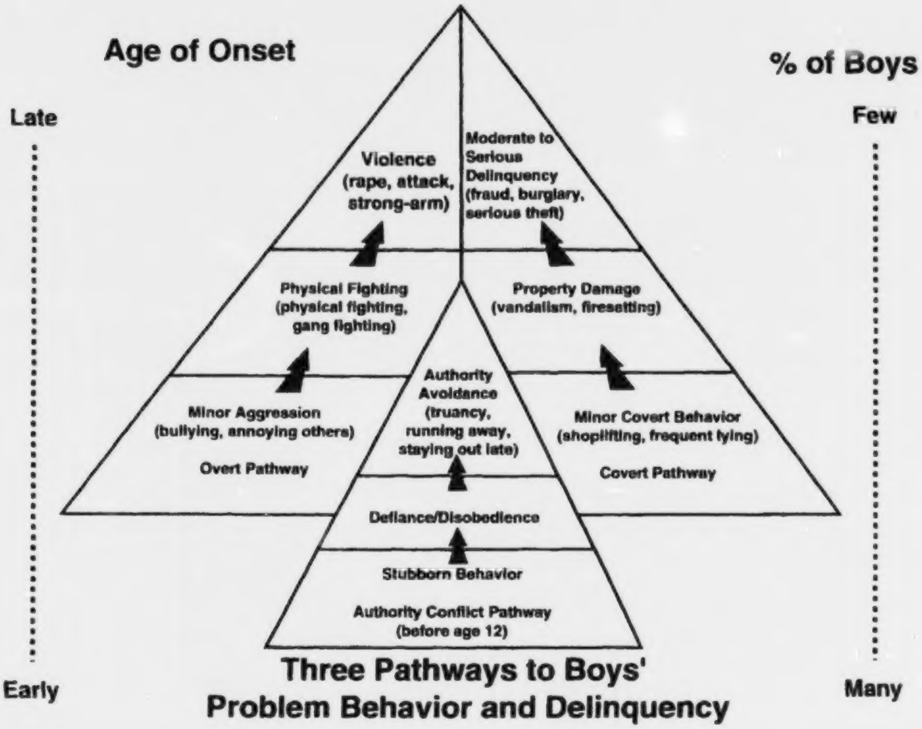
Age of Onset
Late
Early
% of Boys
Few
Many
Violence (rape, attack, strong-arm)
Moderate to Serious Delinquency (fraud, burglary, serious theft)
Physical Fighting (physical fighting, gang fighting)
Property Damage (vandalism, firesetting)
Authority Avoidance (truancy, running away, staying out late)
Minor Aggression (bullying, annoying others)
Overt Pathway
Minor Covert Behavior (shoplifting, frequent lying)
Covert Pathway
Defiance/Disobedience
Stubborn Behavior
Authority Conflict Pathway (before age 12)
Three Pathways to Boys' Problem Behavior and Delinquency

FIGURE 1.1. Model of three developmental pathways toward serious juvenile offending for boys. From Loeber and Hay (1994). Copyright 1994 by Blackwell Publishers. Reprinted by permission.

children with ACP. This section demonstrated that there is also heterogeneity in terms of the developmental pathways these children follow. Practitioners need to take into account these different specific developmental pathways in conceptualizing and conducting interventions

Persistence of Aggression and Conduct Problems

Approximately 42–75% of children with ACP or a behavior disorder will persist in their difficulties through childhood (August, Realmuto, Joyce, & Hektner, 1999; Bennett et al., 1999; Biederman, Mick, Faraone, & Burback, 2001; Campbell, 1995; Kingston & Prior, 1995; Loeber, Burke, et al., 2000; Speltz, McClellan, Deklyen, & Jones, 1999). Frick and Loney (1999) summarized the strongest factors that are associated with persistence of problems. These factors include high initial severity, earlier rather than later onset of problems, comorbid ADHD, lower intelligence levels, and family adversity (e.g., lower SES and family/parenting problems). Some

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children with early-onset ACP desist or evidence a reduction of their problems, especially when they are in transition from either the preschool to the elementary school or from the late adolescence to the adulthood developmental periods (Loeber & Stouthamer-Loeber, 1998). Children with ACP who desist presumably have fewer risk factors than do children with ACP who persist.

Persistence of ACP in children relates to subsequent mental health diagnosis. Children who exhibit persistent "hard-to-manage" behavior up to age 9 are more likely to be diagnosed as ODD or CD during their later elementary school years than hard-to-manage children who desist prior to age 9 or children who never displayed hard-to-manage behavior (Pierce, Ewing, & Campbell, 1999). In one study, school-age boys who evidenced persistent fighting were three times more likely to have a psychiatric disorder 7 years later than were boys who had desisted (Loeber, Green, et al., 2000).

Summary

The information contrasting normal and ACP developmental pathways is useful in designing and implementing effective practices. The normal continuous adaptive pathway shows how children should be developing when they are achieving competence. The various ACP continuous maladaptive pathways demonstrate that the problems of these children start early and worsen over time. Apparently, multiple risk factors account for the persistence of ACP in some children. Interventions must assist children traveling down a maladaptive ACP pathway to find a more adaptive pathway. Assessment methodologies that identify children with early manifestations of ACP should be used. Interventions need to be delivered early in development to reduce the likelihood of persistence of ACP in children. For example, all children in a preschool setting could be screened for the presence of early-onset ACP, and those that meet an acceptable cutoff score on a screening measure could qualify for an early intervention. We present specific assessment and intervention procedures that conform to this framework later in this book.

GENDER DIFFERENCES

It cannot be assumed that assessment and intervention practices work the same for both boys and girls. It is necessary to understand characteristics and developmental pathways that may be unique to boys or to girls so that gender-specific best practice parameters can be defined. In this section we review what is known regarding gender differences in children with ACP.

The prevalence rates of ACP problems in girls may be higher than what is commonly thought. Girls may be underidentified due to the potential bias of criteria used to define aggression and/or CD (Hartung & Widiger, 1998; Keenan, Loeber, & Green, 1999). An emphasis on overt aggression in previous research has resulted in fewer girls being identified and studied. Indeed, the prevalence rates are higher for boys than girls when overt aggression is assessed; but prevalence rates are actually equal when overt and relational aggression is assessed simultaneously (Crick & Grotpeter, 1995).

Few gender differences exist early in development, but as they grow older boys and girls manifest different forms of ACP. Boy and girl toddlers are similar in displaying types of aggression (Keenan & Shaw, 1994). Aggressive toddlers display object-related aggression (e.g., throwing toys, kicking the door), which could be an early indicator of oppositional behavior. Between the ages of 4 and 7 years, clinically referred boys and girls continue to be similar in levels of defiance, arguing, swearing, and yelling at home (Webster-Stratton, 1996a). Gender differences in child-to-child aggression begin to emerge during the preschool years. At this time boys show more overt aggression and girls show more relational aggression (Crick, 1997). Boys continue to display higher levels of overt aggression than girls throughout childhood (Keenan et al., 1999). Although boys and girls are similar in prevalence rates of adolescent-onset CD, gender differences continue to be evident at that period of development (Kazdin, 1995; Zoccolillo, 1993). Girls are more likely to exhibit comorbid internalizing problems in adolescence. Girls are also more likely to manifest the covert forms of CD rather than the overt forms.

Preliminary developmental research reveals some similarities and some differences for how boys' and girls' problems progress over time. It appears that some girls go down a pathway similar to boys when they are exhibiting *early-onset overt (aggressive)* behavior (Moffitt & Caspi, 2001; Rubin, Chen, McDougall, Bowker, & McKinnon, 1995). It has been suggested, however, that many girls manifest severe levels of *covert/conduct problems/delinquent* behavior at a somewhat later stage of development than do boys even though they may have been exposed to similar early risk factors (Hinshaw & Anderson, 1996; Silverthorn & Frick, 1999; Zoccolillo, 1993). More research is needed to better understand gender-related developmental differences (Loeber, Burke, et al., 2000).

The person targeted by the aggressive boy or girl also determines the type of aggression and level of maladjustment of the aggressive child. For example, Russell and Owens (1999) found that aggressive girls use more physical aggression with boys and more "indirect" aggression with girls. As we indicated earlier, boys and girls who engage in gender nonnormative aggression (e.g., boys who exhibit relational aggression and girls who exhibit overt aggression) have the most significant social/psychological maladjustment among aggressive children (Crick, 1997).

Gender differences are also seen with ADHD during the elementary school years. Girls are referred for problems related to ADHD at a much lower rate than are boys. When girls are referred, however, they are very similar to boys in exhibiting the primary symptoms of hyperactivity, impulsivity, and inattentiveness (Horn, Wagner, & Ialongo, 1989). Gaub and Carlson (1997) conducted a meta-analysis and review pertaining to gender differences in ADHD. They concluded that there are no differences in terms of impulsivity, academic, social, and family problems between boys and girls with ADHD. Girls, however, are less hyperactive and less likely to develop additional conduct problems.

Summary

Gender differences in the types of ACP most commonly seen in boys and girls begin in preschool and continue throughout development. Preliminary research suggests that boys and girls are similar when they display early-onset overt-aggressive behavior, but girls may develop covert conduct problems somewhat later than boys. Practitioners need to be aware of gender differences and make sure that girls are not underserved. For example, boys are more commonly referred for behavioral difficulties, but this may be a function of the obvious nature of overt aggression, which gets them noticed by parents and teachers. Girls, who are more likely to exhibit relational aggression, as well as to internalize their emotional problems, are less obvious to referral sources. Assessment procedures that identify less visible forms of maladjustment should be used to identify girls who are struggling, and interventions should be administered accordingly. We discuss gender-specific practices more fully later in this book.

CONCLUSION AND IMPLICATIONS FOR INTERVENTION

The literature we reviewed in this chapter shows that the characteristics of children with ACP can be diverse, yet can also overlap considerably. The first step in any intervention is to identify among the full realm of possible characteristics and problems those that are most indicative of a given child or population of children. Table 1.3 can be used to assist practitioners in pinpointing target problems of children who will receive interventions.

The information pertaining to normal development, general ACP development, and specific developmental pathways for ACP is equally important. The problems of children with ACP worsen as they get older. These accumulated problems become additional risk factors that lead to the persistence of ACP. These at-risk children with ACP need to be identified early and provided with effective interventions to steer them toward a more adaptive or resilient developmental pathway. The interventions we describe later in this book are designed to promote resilient development in children with ACP.

The next chapter will examine child (e.g., biological), parent/family, social/peer, and contextual risk factors that serve to cause, maintain, and/or escalate these problems and characteristics. It will also highlight protective factors that buffer children who face these risks and/or who display early signs of ACP. Understanding these risk and protective factors will ultimately inform intervention efforts.

CHAPTER 2

Risk and Protective Factors Targeted in Intervention

Effective interventions for children who exhibit maladjustment increases the odds of them moving toward a resilient developmental pathway by reducing risk factors and promoting protective factors (August, Anderson, & Bloomquist, 1992; Cummings et al., 2000; Masten & Coatsworth, 1998). A *risk factor* is a characteristic within an individual (e.g., ADHD) or a circumstance (e.g., poverty) that increases the probability of a maladjusted developmental outcome. Different risk factors can exert direct or indirect influences on children's development. A *protective factor* is a characteristic within an individual (e.g., intelligence) or a resource (e.g., effective parent) that buffers the effect of risk and increases the probability of a resilient developmental outcome. Different protective factors can exert direct or indirect effects on children's development and are more or less effective as a buffer in the face of varying levels of risk.

Interventions with children who display early-onset ACP attempt to reverse the trend of problems "stacking" on top of problems by promoting developmental competence. To accomplish this, it is first necessary to understand risk factors that potentially cause, maintain, and amplify these children's problems so they can be reduced. Next, protective factors that may serve as a buffer against risk in children need to be identified so they can be increased. In this chapter we review the risk and protective factors associated with the early-onset ACP and resilient developmental pathways in children. Information related to risk and protective factors in children only shows an association with developmental outcomes and cannot necessarily indicate causation (Pettit, 2000). Nonetheless, by contrasting factors associated with the ACP and resilient developmental pathways, our subsequent discussions of interventions will be clearer in terms of what developmental factors are targeted and what procedures are utilized to potentially enhance children's development.

We will present information about risk and protective factors within the context of the child, parent/family, social/peer, and contextual life domains (i.e., areas of influence in children's development). Accordingly, we first discuss potential risk factors such as biologically based child characteristics that may activate ACP problems; parent, parent–child, and family factors that accelerate ACP problems; social and peer factors that elaborate ACP problems; and contextual factors that adversely affect children with ACP and their families. Next we present information about protective factors and organize them according to the four life domains framework. At the end of this chapter we present a developmental–multisystemic model of practice that proposes interventions to reduce risk and enhance protection within the four life domains.

CHILD BIOLOGICAL RISK FACTORS

In this section we review factors attributed to biologically based characteristics and/or processes implicated in children with ACP. This line of inquiry investigates whether or not the central nervous system (CNS) of children with ACP is different than the CNS of normal children. In Chapter 1 we noted that ADHD coexists in many children who have ACP and that ADHD may be a catalyst for the development of more significant psychopathology in these children. Here we offer an overview of biological factors, including genetic vulnerability, neurological processes, and biological markers associated with ACP and ADHD in children.

These biologically based child factors are important to consider in practice with children exhibiting ACP because they may be related to the initial activation of the early-onset ACP developmental trajectory. Although practitioners cannot change the structure of a child's CNS, they need to understand the biological processes that may be implicated in a child's problems. This understanding should lead to more compassionate and effective interventions.

Genetic Vulnerability

Genetic predisposition to atypical CNS functioning plays a role in the initial expression of ACP in many children (Cadoret, Leve, & Devor, 1997; Cadoret, Yates, Troughton, Woodsworth, & Stewart, 1995; Deater-Deckard & Plomin, 1999; Miles & Carey, 1997; Simonoff, Pickles, Meyer, Silberg, & Maes, 1998). In a comprehensive study, Hudziak, Rudiger, Neale, Heath, and Todd (2000) examined genetic contributions to predicting attention problems and aggression in a large sample of male and female twins. They found that both attention problems and aggression were highly influenced by genetic factors for both boys and girls. Although genetics does appear to play a causal role, research suggests that genetic predispositions are more likely to be expressed in certain environmental circumstances. For example, Miles and Carey (1997) conducted a meta-analysis of 24 genetically informative studies on human aggression. They found that genetic factors accounted for about 50% of the statistical variance, but that more variance was explained when genetic and environmental factors were considered simultaneously. In other words, it appears that genetic factors operate as a vulnerability for the possible expression of ACP, but that environmental risk factors and stressors increase the likelihood of expression of these problems.

Tannock's (1998) comprehensive review provided evidence concerning the heritability of ADHD. Genetic factors are implicated in the development of ADHD in both boys and girls. Other researchers have determined that the genetic contribution to ADHD is stronger than the genetic contribution to other behavioral disorder categories (Levy et al., 1997; Plomin, Owen, & McGuffin, 1994). Pure environmental causes of ADHD are not supported. Environmental factors may be influential in the development of comorbid conditions such as oppositional defiant disorder/conduct disorder/aggression (Barkley, 1998; Goodman & Stevenson, 1989; Tannock, 1998).

Neurological Processes and Biological Markers

Quay (1993, 1997) put forth a theory of disinhibition, which he argued is descriptive of CNS problems underlying aggressive conduct disorder and ADHD in children. Quay relied on Gray's model of self-regulation. Gray (1985) suggested that the flight/fight system in the brain activates arousal in response to environmental cues. According to Gray, the behavioral activation system (BAS) is responsible for initiating behavior when it is needed. Gray also argued that the behavioral inhibition system (BIS) is responsible for inhibiting behavior when that response would be adaptive. The BAS and BIS systems are regulated by the frontal lobes. Quay (1993) argued that aggressive children have an underactive BIS and an overactive BAS. Therefore aggressive children do not inhibit aggressive behavior and are prone to emit aggressive behavioral responses. Quay (1997) argued that children with ADHD have only an underactive BIS, and therefore have problems inhibiting responses.

"Executive functioning," which is largely controlled by the frontal lobe, has been implicated in the problems of aggressive and disinhibited children (Barkley, 1998; Moffitt, 1993; Quay, 1993, 1997). Executive functioning refers to the cognitive processes used to maintain attention and effort, inhibit inappropriate responses, and regulate emotional and behavioral responses. Children who exhibit aggressive and disinhibited behavior (including ADHD) perform poorly on neuropsychological tests measuring aspects of executive functioning (Giancola, Martin, Tarter, Pelham, & Moss, 1996; Giancola, Moss, Martin, Kirisci, & Tarter, 1996; Halperin et al., 1995; Oosterlaan, Logan, & Sergeant, 1998; Oosterlaan & Sergeant, 1996; Seguin, Pihl, Harden, Tremblay, & Boulerice, 1995). It is noteworthy that one study found executive function problems were stronger for boys than for girls (Seidman et al., 1997). Finally, Morgan and Lilienfeld (2000) conducted a meta-analysis of 39 studies of adolescents and adults displaying antisocial behavior. They found a medium to large effect size, suggesting that these individuals perform worse than controls on various measures of executive functioning.

Additional biological processes, some of which may be genetically transmitted and/or indicative of frontal lobe dysfunction, have also been implicated in ACP and ADHD. One such indicator is lower levels of or lower neural receptivity to serotonin metabolite (5-HT) neurotransmitters in aggressive children (Halperin, Newcorn, Kopstein, et al., 1997; Halperin, Newcorn, Schwartz, et al., 1997; Moss & Yao, 1996). Lower levels of catecholamine and dopamine neurotransmitters have also been implicated in ADHD (Tannock, 1998; Zametkin & Rapoport, 1987). There is mixed evidence that aggressive children may have higher levels of the hormone testosterone (Scerbo & Kolko, 1994; Schaal, Tremblay, Soussignan, & Susman, 1996). Finally, miscellaneous biological indicators such as an abnormal electroencephalograph (EEG), neurological "soft signs," and minor physical anomalies have been associated with childhood aggression and ADHD (Barkley, 1998; Pincus, 1991).

CNS assaults may cause ACP and/or ADHD in some children. This area of inquiry has produced mixed results, so caution is needed in interpreting these findings. Elevated blood lead levels (Thomson et al., 1989) and elevated blood copper/zinc levels (Walsh, Isaacson, Rehman, & Hall, 1997) have been found in some samples of children with ACP. Children who are born prematurely (before 29 weeks gestation) have been found to be at elevated risk for behavior problems at age 5 (Girouard et al., 1998). Behavior problems in adolescence have been associated with poor maternal health during pregnancy and birth complications (Allen, Lewensohn, & Seely, 1998). Mothers' smoking of cigarettes during pregnancy predicts CD and substance abuse in later life (Weissman, Warner, Wickramaratne, & Kandel, 1999). Being born with a very low birth weight has been associated with ADHD (Botting, Powls, Cooke, & Marlow, 1997). There is some evidence to suggest that pregnancy and birth complications, elevated lead levels, and prenatal exposure to alcohol and tobacco may be associated with ADHD (Barkley, 1998). Finally, the abuse of alcohol by mothers during pregnancy has been associated with increased incidents of antisocial behavior and learning problems in adolescence (Olson et al., 1997).

Physiological underreactivity is observed in some children with ACP. This is indicated in studies that show that some children with ACP have lower sensitivity to pain (Seguin, Pihl, Boulerice, Tremblay, & Harden, 1996) and lower resting heart rates (Raine, Venables, & Mednick, 1997). There is also evidence of lower levels of cortisol in the implicated areas of the CNS of some children with ACP (McBurnett, Lahey, Rathouz, & Loeber, 2000; Moss, Vanyukov, & Martin, 1995; Vanyukov et al., 1993). Cortisol has been described as the adrenal "stress hormone." Lower levels of it may suggest an underaroused CNS. Perhaps physiological underreactivity relates to different subtypes of ACP in children.

Summary

Biologically based processes are vulnerability and risk factors that are associated with increased probability of initial expression of early-onset ACP and ADHD. They may be inherited in some children, and may possibly be derived from CNS assaults in others. It appears that the frontal lobe area of the CNS is implicated in the executive functioning deficits and related disinhibition problems in some children with ACP and/or ADHD. Biological processes indicating underarousal may be important to consider with other children with ACP. Child biological factors need to be considered to facilitate a greater understanding of children with ACP and to inform intervention efforts. For example, children with early and significant disinhibition (likely influenced by CNS functioning) may profit from interventions designed to "manage" behaviors, such as medications or behavioral contingency strategies. Additional intervention approaches for children with potential biologically based behavior problems are discussed later in this text.

There are limitations to this information that should be noted. Much of the research on biological processes and children relates to overt aggression and ADHD. Therefore not all of the preceding discussion may apply to other subtypes of ACP such as relational aggression, covert behavior problems, and so on. Although girls are represented in the research described here, boys are more likely to be studied than girls. More research is needed to investigate the biological basis for the problems of children exhibiting differing subtypes of ACP and more research needs to include girls.

PARENT, PARENT–CHILD RELATIONSHIP, AND FAMILY RISK FACTORS

Environmental factors can initiate ACP in some children and serve to escalate or stabilize it in others. Parent, parent–child, and family difficulties are the most widely studied set of environmentally based variables in this regard. In this section we review characteristics of the parent, parent–child relationship, and family that have been associated with childhood ACP.

As this review indicates, parent, parent–child, and family risk factors exert considerable influence on the worsening of problems for children with ACP. Therefore, it is imperative to fully understand the impact of these risk factors so that interventions can be utilized to address them.

Parent Characteristics

Incidence rates of depression are higher in mothers of aggressive, conduct problem, oppositional, and ADHD children than in the general population (Boyle & Pickles, 1997; Dumas & Serketich, 1994; Lahey et al., 1998; Nigg & Hinshaw, 1998; Webster-Stratton & Hammond, 1998). Depressed and "distressed" mothers do evidence parenting difficulties and problematic interactions with their children (Gelfand & Teti, 1990; Harnish, Dodge, & Valente, 1995; Jouriles, Murphy, & O'Leary, 1989; Webster-Stratton & Hammond, 1988). Lovejoy, Graczyk, O'Hare, and Neuman (2000) conducted a meta-analysis of 46 observational studies. They found that depression in mothers was associated with negative/coercive behaviors, with disengaged behaviors, and, to some extent, with lower positive interactions with their children. In addition, maternal insularity (i.e., low levels of social support), which could be related to maternal depression, is also fairly common in the mothers of children with ACP (Dumas & Serketich, 1994; Webster-Stratton, 1990a). Maternal depression and child behavior problems are correlated, but we do not know which is the cause and which is the effect (Griest, Wells, & Forehand, 1979).

Higher levels of antisocial behavior and substance use/abuse have been found in parents, especially fathers, of children with ACP (Frick, 1994). Specifically, parents who have antisocial personality disorder have been found to have more children with ACP (Frick et al., 1992). Sons of substance-abusing fathers are more likely to exhibit higher levels of aggression than sons of non-substance-abusing fathers (Malo & Tremblay, 1997; Moss, Mezzich, Yao, Gavaler, & Martin, 1995). Having a disturbed father increases the likelihood of a child with ADHD exhibiting comorbid oppositional behavioral problems (Johnston, 1996).

Negative cognitions are often found in parents, especially mothers, of children exhibiting ACP (Dix & Lochman, 1990; Kendziora & O'Leary, 1998; Morrissey-Kane & Prinz, 1999). Parents of children with ACP are prone to negative irrational beliefs about their children and/or themselves (Sobel, Ashbourne, Earn, & Cunningham, 1989; Vincent Roehling & Robin, 1986), to an external locus of control regarding their children's misbehavior (i.e., perceiving themselves as ineffective) (Campis, Lynam, & Prentice-Dunn, 1986), and to inattentiveness regarding their children's behavior (Holleran, Littman, Freund, & Schmaling, 1982; Wahler & Dumas, 1989). These same parents are likely to appraise their children's behavior as more problematic than it actually is (Greist, Forehand, Wells, & McMahon, 1980; Middlebrook & Forehand, 1985). Finally, when children with ACP do act up, their parents often attribute that behavior to intentional, negative, internal, stable, dispositional traits that the child could control (e.g., "She's a brat.") (Baden & Howe, 1992; Bickett, Milich, & Brown, 1996; Dix & Lochman, 1990; Miller, 1995; Sobel et al., 1989).

Parents' degrees of depression, stress, and distress relate to how they process information regarding their children. Highly distressed mothers are less able to attend to their children's behavior than are nondistressed mothers (Dumas & Wekerle, 1995). Levels of distress and depression have also been related to maternal negative appraisals and attributions for children's behavior (Geller & Johnston, 1995; Johnston & Freeman, 1997). It remains a topic of debate whether depressed mothers actually "distort" their perceptions of their children or if in fact they may be more accurate than other people in evaluating their children's misbehavior (Conrad & Hammen, 1989; Richters, 1992). In any event, there does appear to be a relationship between parental emotional state, parental cognition, and parenting behavior.

It is assumed that parental cognition (accurate or not) corresponds with parental responses and reactions to children (Johnston & Freeman, 1997; Mash & Johnston, 1990). Presumably, if parents think of their children in negative ways, they will respond to them in a negative fashion. These negative parental responses may exacerbate and continue the escalation of the parent–child interaction difficulties and child behavioral problems. For example, it has been found that mothers who make hostile attributions regarding their children's ambiguous behavior exhibit harsher discipline styles, which in turn relates to their children later developing behavior problems (Nix et al., 1999).

Parent–Child Attachment

Attachment is the quality of the parent–child relationship as seen from the child's perspective. It has to do with how available and how responsive the parent is to meet the child's emotional and physical needs. Internal representational models of relationships form during the first year of life, depending on the quality of attachment (Greenberg, Speltz, & Deklyen, 1993). These internal working models can effect the child's future relationships and how the child "sees" the world. Four types of attachment have been defined: secure, insecure-avoidant, insecure-ambivalent/resistant, and insecure-disorganized/disoriented. Secure attachments develop in the context of responsive caretaking, while insecure attachments develop within the context of unresponsive and/or inconsistent caretaking. Attachment status is fairly stable, especially throughout the preschool- and school-age years (Greenberg et al., 1993).

Attachment classification in childhood is linked to childhood ACP. Insecure attachments in preschool- and school-age children predict difficult peer relationships and anger/irritability/noncompliance problems (Greenberg et al., 1993). In particular, the insecure-ambivalent/resistant and insecure-disorganized/disorientated attachment subtypes have been demonstrated to have the strongest link to ACP in children (Fagot & Pears, 1997; Lyons-Ruth, 1996). The effects of attachment have been found to have long-term implications. Attachment difficulties in infancy predict behavior problems in middle childhood. For example, mothers who are unresponsive to their infants have been found to have children with more significant levels of disruptive behavior during the middle school years relative to mothers who are initially responsive to their infants (Wakschlag & Hans, 1999). The relationship between attachment and ACP in children is stronger for high-risk populations (e.g., low SES, young mothers, etc.) than for low-risk populations (e.g., middle-class, older mothers, etc.) (Greenberg et al., 1993).

Although most attachment research has studied mother–child relationships, some research is available studying father–child relationships. The results of this research are similar to what is found in mother–child relationships. Insecure father–child attachments are associated with early-onset ACP in children (Deklyen, Speltz, & Greenberg, 1998).

Parent–Child Interactions and Parent Practices

Coercive parent–child interactions exist in many of the families of children with ACP (Dansforth, Barkley, & Stokes, 1991; Dumas, Lafreniere, & Serketich, 1995; DuPaul & Barkley, 1992; Moffitt, Caspi, Dickson, Silva, & Stanton, 1996; G. R. Patterson et al., 1991; Patterson, Forgatch, Yoerger, & Stoolmiller, 1998). Coercive interactions are comprised of reciprocal negative parent and child behaviors. The parent behaviors include inconsistent/harsh discipline, poor monitoring/supervision, low levels of warmth/nurturance, and high numbers of negative verbalizations directed toward the child. Child noncompliance/aggression is also often observed in coercive parent–child interactions. Negative reinforcement, or escape conditioning, is the central feature of coercive parent–child interactions. This occurs when either the parent or the child is behaving aversively, causing the other to withdraw and give in to that behavior. For example, the parent directs the child to clean up, the child has a tantrum, and the parent withdraws the original directive. These interactions can become habitual over time. Most research in this area has been conducted with Caucasian boys and their mothers. Recent research, however, has documented that coercive interactions do exist between African American boys and girls with ACP and their parents (Kilgore, Snyder, & Lentz, 2000), as well as between children with ACP and their fathers (Deklyen et al., 1998). Coercive interactions are remarkably stable: parent–child dyads who are classified as coercive during the elementary school years continue to be classified as coercive during the adolescent years (Barkley, Fischer, Edelbrock, & Smallish, 1991; Fletcher, Fischer, Barkley, & Smallish, 1996).

Coercive parent–child interactions are strongly linked to ACP and related DSM–IV categories of child disturbance. Coercive parent–child interactions are associated with ACP in preschool, elementary school, and adolescent populations (Barkley, 1998; Kilgore et al., 2000; G. R. Patterson et al., 1991, 1998; Stormshak, Bierman, McMahon, Lengua, & Conduct Problems Prevention Research Group, 2000). Coercive parent–child relationships during the preschool-/school-age development periods predict aggressive peer relationships and affiliation with antisocial peers in adolescence (G. R. Patterson et al., 1991, 1998). Severity of coercion varies across DSM–IV diagnostic categories in school-age children and adolescents. For example, higher levels of parent–child coercion are associated with children exhibiting comorbid ADHD/ODD than in children with ADHD alone or normal functioning (Fletcher et al., 1996; Gomez & Sanson, 1994; Johnston, 1996). Negative and coercive parenting behavior has been related to children's noncompliance and stealing (Anderson, Hinshaw, & Simmel, 1996). Coercive parenting has been linked to aggression in both boys and girls (McFadyen-Ketchum, Bates, Dodge, & Pettit, 1996). Finally, parents who do a poor job of monitoring their children during the elementary school years (poor monitoring is an element of coercive parenting) are more likely to have adolescents who engage in covert conduct problem behavior and substance abuse (Chilcoat & Anthony, 1996; Dishion & McMahon, 1998).

The longer term effects of coercive parent–child relationships may be different for boys than for girls. For example, McFayden-Ketchum and colleagues (1996) studied boys and girls from preschool to school age. They found that early coercive parent–child relationships predicted continued aggression for boys, but not for girls. They theorized that boys are more likely to resist their parents and to engage in aversive/aggressive behaviors in response to their parents' coercive behavior, whereas girls may be more compliant and withdraw from their parents' aversive behavior. Therefore boys receive more "training" from their parents than girls do. More research is needed to understand the differential effects of coercive parenting on boys versus girls.

Physical abuse, an extreme form of coercive parent–child interaction, has been linked to childhood ACP in both cross-sectional and longitudinal research. Physical abuse is defined as parental actions resulting in injury. It is often due to parental anger and often coexists with psychological (emotional/verbal) abuse (Wekerle & Wolf, 1996). Physical abuse of young children has been found to predict ACP behavior, bullying, and negative peer relationships in children (Dodge, Pettit, & Bates, 1994a; Manly, Cicchetti, & Barnett, 1994; Shields & Cicchetti, 2001). Early physical abuse of children also predicts emotion regulation problems and social cognitive distortion/deficits (see Social and Peer Risk Factors section below), which in turn often leads to later ACP (Dodge, 1993; Dodge, Pettit, Bates, & Valente, 1995; Shields & Cicchetti, 2001).

Spanking or other types of corporal punishment can be conducted in a nonabusive manner (e.g., not hitting hard enough to leave marks and done only with the intent to discipline) or in an abusive manner (e.g., hitting hard enough to leave marks and done out of parental anger). Spanking or corporal punishment has been linked to the development of varying levels of childhood aggression in longitudinal studies. For example, Strassberg, Dodge, Pettit, and Bates (1994) followed children who were either physically abused, spanked but not abused, or nonspanked from preschool to kindergarten. They found that kindergarten children in the physically abused group exhibited the highest level of aggression, followed by the nonabused spanked group who exhibited moderate aggression, and the nonspanked group who exhibited low aggression. Other longitudinal studies have shown a relationship between spanking early in life and subsequent development of aggressive/antisocial behavior in children (see Straus & Steward, 1999). Some literature, however, suggests that physical discipline may not have detrimental effects on all children. This research suggests that nonabusive physical punishment actually reduces the behavioral problems of preschool children (Larzelere, 2000). There may also be differences in how physical punishment effects children from different cultural groups. Early spanking or "punitive" parenting is related to subsequent development of aggression in European American children, but not in African American children (Deater-Deckard, Dodge, Bates, & Pettit, 1996; Stormshak, Bierman, McMahon, Lengua, & Conduct Problems Prevention Research Group, 2000). More research is needed to determine the relationship between physical punishment and the development of ACP in children of different ages and from different cultures.

Different developmental processes appear to be effected by problematic parent–child interactions in children with ACP. First, it is likely that the coercive parent–child interactions disrupt parent–child bonding, resulting in insecure attachment relationships (Greenberg et al., 1993). Second, coercive parent–child relationships in younger children appear to negatively effect the development of self-regulation capabilities that can result in reactive aggression (Shields & Cicchetti, 1998; Shields, Cicchetti, & Ryan, 1994). Third, problematic parent–child interactions are related to social information-processing difficulties (discussed later in this chapter) that are characteristic of overtly aggressive, reactively aggressive, and proactively aggressive children (Crick & Dodge, 1994). Fourth, boys and girls who engage in coercive interchanges with parents are also very likely to engage in similar interactions with peers (Dishion, Duncan, Eddy, Fagot, & Fetrow, 1994; Webster-Stratton & Hammond, 1998), suggesting that early coercive parent–child interactions create a template for social behavior that is applied with later peer–child interactions. Finally, Wolfe (1999) explained that physical abuse and other forms of child maltreatment interferes with normative development, resulting in impaired relational representation, disregulation of emotions, deficits in social awareness, and peer problems, which are related to children developing a variety of emotional and behavioral problems.

Family Interactions and Family Status

Certain characteristics of the family unit as a whole relate to negative developmental outcomes in children. One such characteristic frequently observed in children with ACP is sibling relationship problems. Patterson (1984) found that both older siblings and parents tended to be aversive with clinically referred aggressive children. Garcia, Shaw, Winslow, and Yaggi (2000) discovered that young boys who are involved in conflictual sibling relationships, and who experience parental rejection, tend to be aggressive at both home and school. They further noted that sibling conflict predicted mothers' reports of child delinquency longitudinally. The addition of sibling conflict to the broader array of family interactions may contribute to the "training" of ACP behavior in children.

A broad association has been established between marital problems and a variety of childhood difficulties, including ACP (Crockenberg & Covey, 1991; Kazdin, 1995). Marital problems can include conflict and other dimensions of marital functioning. Marital problems have been related to level of behavior problems in toddlers and preschool children, as well as to negativity in parent behavior while interacting with those same children (Jouriles, Pfiffner, & O'Leary, 1988; Webster-Stratton & Hammond, 1999). A high level of marital disagreement about child rearing has also been linked to behavior problems in children, with the effects stronger for younger children than for older children (Mahoney, Jouriles, & Scavone, 1997). Marital problems also relate to school-age children's level of problem behavior, especially in low SES families and clinic-referred children (Jouriles, Bourg, & Farris, 1991). High levels of marital problems can disrupt or adversely affect parenting; the combination of marital problems with parenting problems is related to the development of ACP in children (Crockenberg & Covey, 1991; Mann & Mackenzie, 1996).

Interparental and family violence contributes to the development of ACP in children. Parental conflicts (e.g., shouting, swearing, throwing objects, etc.) are the strongest marital variable, among a wide variety of marital variables, to be associated with childhood behavior problems in school-age children (Jenkins & Smith, 1991). Researchers have demonstrated a linear relationship between severity of interparental violence and child ACP problems. The higher the level of combined verbal/physical violence between parents, the more aggressive and socially/emotionally maladjusted are preschool- and school-age children (Fantuzzo et al., 1991; Grych, Jouriles, Swank, McDonald, & Norwood, 2000). In school-age children, interparental violence has been linked to a wide variety of childhood disorders, including ACP (McCloskey, Figueredo, & Koss, 1995). Apparently children adapt differently to domestic violence, with some exhibiting externalizing symptoms, some exhibiting internalizing symptoms, and some exhibiting combined externalizing/internalizing symptoms (Grych et al., 2000). Witnessing interparental violence by itself has a significant impact on children and may be associated with other factors related to negative outcomes in children.

It is reasonable to hypothesize that single mothers would be at a disadvantage, when compared to dual parents, in providing adequate parenting. Several studies find that children in mother-led families exhibit higher levels of aggression than children in mother–father or mother–partner families (Pearson, Ialongo, Hunter, & Kellam, 1994; Vanden-Kierman, Ialongo, Pearson, & Kellam, 1995). This relationship is not observed, however, when SES is considered. Both mother-led and mother–father-led low-income households have the same level of aggression in their children (Pearson et al., 1994). It may be that factors associated with low SES are more important contributors to development of ACP than single-mother status. More research is needed regarding the relationship between single-parent status and childhood ACP.

Divorce/separation or other parental transitions can disrupt childhood development and may relate to development of ACP. Boys and girls who experience parental divorce or separation often experience peer rejection (C. J. Patterson, Vaden, & Kupersmidt, 1991). Boys who experience two or more transitions have been found to be more aggressive than boys who experience fewer than two transitions (Capaldi & Patterson, 1991). The effects appear to be indirect because parental transitions likely impact other family processes that influence the development of ACP in children.

Family instability refers to the number of moves a family makes, the number of relationships the primary caretaker has, the number of individuals moving in and out of a home, homelessness, and so on. If family instability is chronic, it likely indicates a chaotic and unstable life for the children in those families. Family instability has been linked to the development of child externalizing behaviors and internalizing symptoms (Ackerman, Kogos, Youngstrom, Schoff, & Izard, 1999). Homelessness may be the most extreme form of family instability because homeless children do not experience a stable or constant residence. It turns out that homeless preschool- and school-age children are prone to higher rates of externalizing behavior problems (Schteingart, Molnar, Klein, Lowe, & Hartmann, 1995) and internalizing symptoms (Buckner, Bassuk, Weinreb, & Brooks, 1999). The instability of the external family environment may negatively effect children's own internal stability, resulting in the manifestation of behavioral and emotional problems.

Even the size of the family and birth order have been linked to childhood ACP. Kazdin (1995) noted that larger families are associated with more children exhibiting aggression and conduct problems, especially in the low SES context. The effect is more pronounced if there are many brothers. Kazdin also noted that middle children in the birth order are more likely to exhibit ACP. It could be that children in large families do not get their emotional needs met, or they are not closely monitored, or they are not provided as much opportunity to bond with their parents, or there may be the increased likelihood of negative role models in the family.

Summary

Parent functioning, parent–child relationships, and family interactions are strongly related to the development of ACP in children. It appears that parent characteristics, such as parental psychopathology and negative cognitions about child/self, likely influence parenting. Children who experience unresponsive parenting, coercive parenting, and inconsistent/ineffective parent discipline are at heightened risk for the development of ACP. Parenting problems associated with the development of ACP begin as early as infancy and toddlerhood (Shaw, Owens, Giovannelli, & Winslow, 2001). Family variables such as sibling conflicts, marital problems, family violence, single motherhood (combined with low SES), family transitions, family instability, and large family size also contribute to this childhood problem. These parent–child relationship and family variables function as risk factors that have the potential to interfere with normative development in children and amplify the maladjusted early-onset ACP developmental trajectory.

Practitioners need to be able to assess and alter the parent, parent–child, and family factors discussed here. For example, if it is determined that a coercive parent–child relationship exists, it is necessary to provide parent and family skills training and forms of support for the parent and family. Later in this book we suggest ways to identify these problems and to teach parents and family members skills to enhance family relations, as well as methods to provide family support. If successful, these interventions can exert a powerful positive influence on the development of children with ACP.

SOCIAL AND PEER RISK FACTORS

The sphere of influence on children's development widens as they get older to include the peer group. Social and peer factors can exacerbate the problems of children with ACP, sending them further down the maladjusted trajectory of development. In this section we review peer interaction behavior, the emotion processes that effect social behavior, social information-processing factors that effect social behavior, peer status, and peer affiliations that are common in children with ACP. Most of this information pertains to children who manifest forms of early-onset aggression as a primary concern.

The social problems seen in children with ACP operate as a risk factor because they increase the probability of escalating adjustment problems. In other words, social and peer factors have much to do with the worsening of problems for children with ACP. It is important to understand social and peer risk factors so that assessment and intervention practices can focus on them.

Peer Interaction Behaviors

As might be expected, aggressive children exhibit more physical aggression, more reactive aggression, and a higher level of activity (including prosocial and antisocial behaviors) in playgroups and on playgrounds (Coie, Dodge, Terry, & Wright, 1991; Pepler, Craig, & Roberts, 1998). When engaged in structured/cooperative tasks, aggressive children are ineffective in their communication behaviors (Dumas, Blechman, & Prinz, 1994). Aggressive children are less able to ask questions, to elicit information, and to show interest in others. They are more likely to interrupt, be inattentive, make critical comments, and exhibit disapproving behavior toward peers. Reactive aggressive children exhibit social skills deficits in their ability to solve problems, share, and negotiate (Day et al., 1992).

Similarly, children with ADHD are generally more off-task, aggressive, and active in both structured and unstructured situations (DuPaul & Barkley, 1992; Madan-Swain & Zentall, 1990). These children also talk more and ignore others who are talking to them more. Boys with ADHD have also been found to be lacking in communication skills when handling conflict and when engaged in cooperative tasks (Grenell, Glass, & Katz, 1987). Peers end up giving them more commands and saying more negative things to them. Apparently, children with ADHD bother and annoy their peers.

Emotion Processes and Social Behavior

The capacity to understand and regulate emotions influences the social interactions of children with ACP. It has been determined, for example, that children with behavior problems are deficient in emotional understanding of both self and others, so that it is difficult for them to discuss feelings (Cook, Greenberg, & Kusche, 1994). These children also have difficulty identifying adult facial expressions and children's voice tones (Strand & Nowicki, 1999). Finally, hard-to-manage preschool children (Hughes, White, Sharpen, & Dunn, 2000), school-age children with ADHD, combined type/aggressive (Wheeler Maedgen, & Carlson, 2000), and school-age boys with ADHD/aggressive (Melnick & Hinshaw, 2000) manifest poor emotion regulation. These children are prone to emotional lability (overarousal) and lack the capacities to regulate these strong emotions. Their problems with emotion regulation negatively effects these children's social interactions. The aggressive behavior that interferes with social interactions seems to be closely associated with emotion regulation problems in these children (Melnick & Hinshaw, 2000). These research findings suggest that the emotional functioning of children with ACP likely exerts a negative impact on their social relationships.

Social Information Processing and Social Behavior

An association has been demonstrated between aggressive child behavior, peer status, and how children process information about social interactions. Crick and Dodge (1994) summarized theory and research examining the social information-processing characteristics of aggressive and socially maladjusted children. The six-stage Crick and Dodge model is presented in Figure 2.1. Encoding is attending to and receiving information. Interpretation is the process of establishing the meaning of that information. Clarifying goals is about determining an outcome for the situation at hand. Response access is thinking of all the possible responses one could use in a given situation. Response decision pertains to choosing one of the solutions and determining a course of action. Enactment is the implementation of the chosen behavior. Children process this social information sequentially and simultaneously. Information is processed by children through a store of memories or schema they have developed through their previous experiences throughout their lives. Recently, Lemerise and Arsenio (2000) updated the Crick and Dodge model to emphasize how emotion processes are influential for how social information is processed. They argued that social information will be processed differently when a child is emotionally aroused (e.g., angry, anxious, upset) than when he or she is calm. Children with emotion regulation problems are therefore more likely to display social information-processing difficulties.

Aggressive children process information differently than nonaggressive children. During social interactions, aggressive children fail to attend to others' prosocial cues, pay too much attention to others' aggressive cues,

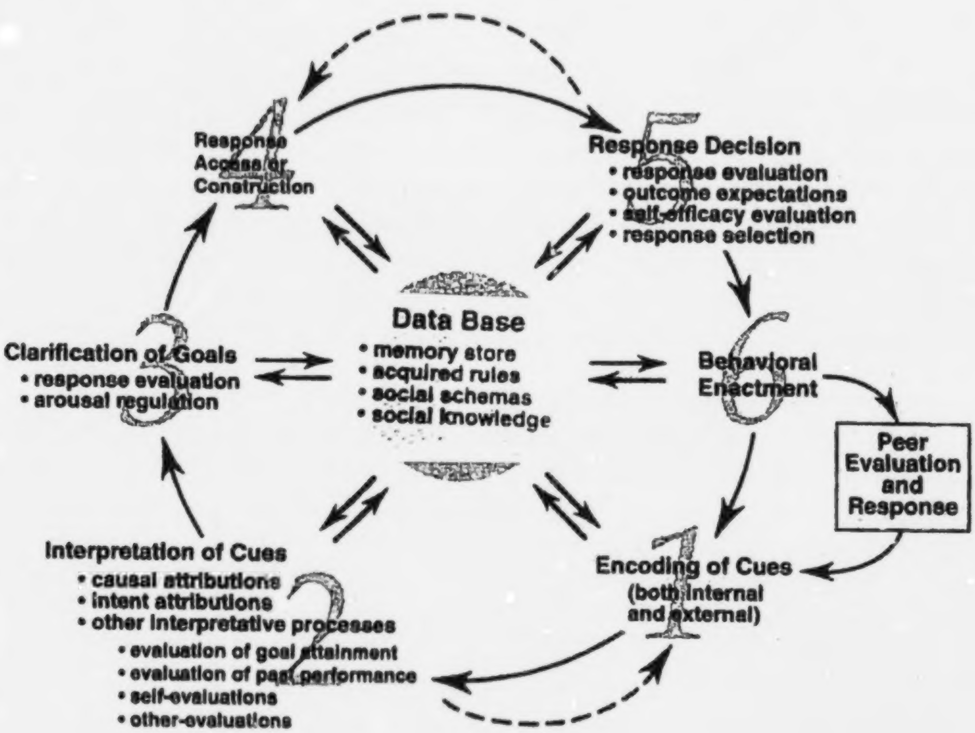

FIGURE 2.1. A reformulated social information-processing model of children's social adjustment. From Crick and Dodge (1994). Copyright 1994 by the American Psychological Association. Reprinted by permission.

interpret others' benign behavior as having a "hostile intent," generate fewer prosocial and more aggressive solutions to solve interpersonal problems, anticipate fewer consequences for their actions, and expect more positive outcomes from employing aggressive solutions to solve their social problems than other children (see Crick & Dodge, 1994, 1996; Dodge, 1993; Pepler, Byrd, & King, 1991). It is noteworthy that reactively aggressive children are most prone to make hostile intent attributions, and that proactively aggressive children are most likely to expect positive outcomes from aggressive solutions. It is also noteworthy that children diagnosed as ODD/CD with or without ADHD are prone to exhibit similar social information processes (Matthys, Cuperus, & Van Engeland, 1999). In short, aggressive children exhibit both cognitive deficiencies and distortions in how they process information (Kendall & MacDonald, 1993).

This pattern of social information processing is entrenched in aggressive children. Aggressive children process information in the manner described above as young as 4 to 7 years of age (Webster-Stratton &

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Lindsay, 1999). Social information processing also varies as a function of severity of aggression. Severely violent youth exhibit more extreme social information-processing deficits and distortions than moderately aggressive children, who, in turn, exhibit more social information-processing difficulties than nonaggressive children (Lochman & Dodge, 1994). Even when aggressive children are required to stop and think about their choices, they still choose qualitatively more aggressive responses to solve social problems than normal children (Bloomquist, August, Cohen, Doyle, & Everhart, 1997).

Aggressive children also hold distorted or erroneous beliefs about themselves and their world. They have inflated self-perceptions of their own competence and degree of social acceptance (i.e., they rate themselves better than other adults/children do), as compared to nonaggressive children (David & Kistner, 2000; Hughes, Cavell, & Grossman, 1997; Webster-Stratton & Lindsay, 1999). Aggressive children with inflated self-perceptions are more aggressive than children whose self-perceptions are not inflated (Edens, Cavell, & Hughes, 1999). Finally, aggressive children are likely to believe that aggressive solutions are the best way to solve problems (Erdly & Asher, 1998; Huesmann & Guerra, 1997).

Concern for others is the social–cognitive and behavioral process of thinking of others' perspectives and then demonstrating that concern (if warranted). Hastings, Zahn-Waxler, Robinson, Usher, and Bridges (2000) measured concern for others in children with low, moderate, and severe aggression and behavior problems. The children did not show differences in concern for others during the preschool years. The highly aggressive children, however, decreased significantly in concern for others later during the elementary school-age years. This lack of concern for others was more pronounced in boys than in girls.

Relationally aggressive children also display problematic social information-processing patterns. These children exhibit distorted attributions similar to those of overtly aggressive children, but their attributions are contextually different. Relationally aggressive children assume others have hostile intent for perceived relational provocations (Crick, 1995). Relationally aggressive children assume that others have the intent to shun or slight them, which causes them to feel distressed. Distress in turn may elicit a relationally aggressive behavior. It also has been determined that aggressive boys prefer overtly aggressive solutions to solve interpersonal problems, whereas aggressive girls prefer relationally aggressive solutions to solve interpersonal problems (Crick & Werner, 1998).

Peer Status

Children who are overtly aggressive are often disliked and rejected by their peers (Coie, Dodge, & Kupersmidt, 1990; Coie, Terry, Lenox, Lochman, & Hyman, 1995; Erhardt & Hinshaw, 1994). Within a population of peer-rejected children, those who are aggressive are usually the most rejected (French, 1988). Aggressive/rejected children have been found to have higher levels of aggression and lower levels of prosocial behaviors compared to aggressive/nonrejected, rejected/nonaggressive, and accepted children (Bierman, Smoot, & Aumiller, 1993). Aggressive children who are liked by some and rejected by others are termed controversial children. These controversial children are most likely to be perceived by their peers as "athletic" and "attractive" (Johnstone, Frame, & Bouman, 1992).

Children with different types of aggression evidence different patterns of peer status. Reactive aggressive children are disliked more than proactive aggressive children (Poulin & Boivin, 1999, 2000), probably because the former are more aversive to others. Even though proactive aggressive children are sometimes classified as being liked, recent research suggests that this status may not be stable. Proactive aggressive children are initially liked, but over time conflicts do develop between proactive aggressive children and their friends (Poulin & Boivin, 1999). Therefore the ability of proactive aggressive children to be able to make friends initially is not necessarily long-lasting. Gender can also effect peer status among aggressive children. For boys, overt aggression is the strongest predictor of rejection, whereas for girls, relational aggression is the strongest predictor of rejection (Crick, 1997).

Similar findings regarding peer status have been found with school-age children with ADHD. These children are often rated lower on sociometric measures, suggesting a rejected status among peers (Carlson, Lahey, Frame, Walker, & Hynd, 1987; Erhardt & Hinshaw, 1994). The combination of ACP with ADHD in school-age children relates strongly to rejected peer status (Pope, Bierman, & Mumma, 1989, 1991).

Aggression and peer rejection in childhood predicts adolescent antisocial behavior (Miller-Johnson et al., 1999). The long-term effects may vary according to the gender of the child. Boys' adolescent antisocial behavior is best predicted by early aggression and peer rejection, whereas girls' antisocial behavior is best predicted by early aggression only (Miller-Johnson et al., 1999). Peer status variables seem to propel the child with early-onset ACP further along the maladaptive ACP developmental pathway.

Peer Affiliations

Peer affiliation is another dimension of peer behavior that is often problematic among children with ACP. Even during the preschool years, aggressive children tend to affiliate with other aggressive peers (Farver, 1996; Synder, Horsch, & Childs, 1997). It has been determined that many proactive aggressive children are liked by, and affiliate with, other proactive aggressive peers (Poulin & Boivin, 2000). Research has shown that aggressive children are rejected by prosocial peers, which causes them to seek out other aggressive children with whom to affiliate (Hektner, August, & Realmuto, 2000).

As children grow up, their peer group associations can increase their risk of developing conduct problems. Those children who manifest early aggression are prone to associate with antisocial children as they get older, which leads to increasing rates of conduct difficulty (Dishion et al., 1994; Fergusson, Woodward, & Horwood, 1999; Vitaro, Tremblay, Kerr, Pagani, & Bukowski, 1997). Over time, affiliation with deviant peers can lead to increased levels of delinquency and conduct problems (violence, theft, vandalism, drug use) in the middle school and adolescent years (Vitaro, Gendreau, Tremblay, & Oligny, 1998). Aggressive or antisocial children apparently reinforce each other for their aggressive and antisocial behavior (Dishion, Andrews, & Crosby, 1995; Dishion, McCord, & Poulin, 1999). Deviancy training, in which peers reinforce each other's antisocial behavior (e.g., by their laughter, encouragement, etc.), has been directly linked to the escalation of aggression and the eventual "metamorphosis" of conduct problems such as substance abuse, delinquency, increased numbers of sexual partners, and violence in boys (Dishion et al., 1999; Patterson, Dishion, & Yoerger, 2000).

Summary

Social and peer factors are implicated in the development and acceleration of ACP in children. Perhaps because of biological predispositions that make children with ACP prone to aggression, and earlier experiences within the family, these children tend to be aversive with other children. Atypical emotion processes and social information distortions/deficiencies in these children exacerbate peer interaction problems. Eventually, many children with ACP end up being rejected by prosocial children and affiliate with other children with ACP. These affiliations appear to accelerate and elaborate the early-onset ACP developmental pathway.

Interventions must address peer and social factors to effect change in children with ACP and to prevent them from developing more problems. For example, assessment may reveal that a child with ACP has social interaction and social information-processing difficulties. That child may improve with a social competence training intervention, along with enrollment in a community-based program that fosters affiliations with prosocial peers. Our subsequent discussions of interventions will provide information pertaining to child-focused social competence training, family interventions, and community supports that facilitate social development in children with ACP.

CONTEXTUAL RISK FACTORS

To fully understand the influences on children's development, it is necessary to examine the individual within an ecological context (Bronfenbrenner, 1979). The sphere of influence of problem development for children with ACP includes broader contextual factors such as SES, neighborhood/community, stressful events, school factors, and broader societal variables. These factors may exert a direct or an indirect influence and relate to the stabilization and elaboration of ACP over time.

In our view, interventions are incomplete unless they address these important contextual issues. This section will enable practitioners to better understand the contextual risk factors implicated in the development of children with ACP so that practices can address them accordingly.

Socioeconomic Disadvantage/Poverty

Socioeconomic disadvantage increases the risk for aggression and antisocial behaviors in children, adolescents, and adults (Guerra, Huesmann, Tolan, Van Acker, & Eron, 1995; Kazdin, 1995; McLoyd, 1998). Children who develop ACP most often live in urban, low SES settings (Kazdin, 1995; Lahey et al., 1999). Low SES predicts lower school achievement and lower cognitive functioning in children living in both urban and rural settings (Dubow & Ippolito, 1994; Felner et al., 1995; McLoyd, 1998; Stipek & Ryan, 1997). There is a linear relationship between SES and ACP in children. As the magnitude of poverty increases, so too does the severity of ACP in children (Bolger, Patterson, Thompson, & Kupersmidt, 1995; Dodge, Pettit, & Bates, 1994b). The association of SES and ACP behavior in children is more pronounced for boys than for girls, and is not directly associated with race or ethnicity (Bolger et al., 1995; Patterson, Kupersmidt, & Vaden, 1990). Race/ethnicity is implicated indirectly, however, because minority youth are disproportionately represented in low socioeconomic and poverty environments.

The relationship between SES and ACP in children is indirect. It affects parents and their parenting, which in turn affects their children. For example, depression is often observed in mothers who have socioeconomic difficulties (Brody & Flor, 1997; Webster-Stratton & Hammond, 1988). In addition, the stress associated with socioeconomic disadvantage negatively effects parent behavior and parenting practices which, in turn, promotes the development of ACP in children (Bank, Forgatch, Patterson, & Fetrow, 1993; Bolger et al., 1995; Dodge et al., 1994b; Kilgore et al., 2000; Larzelere & Patterson, 1990; McLoyd, 1998). Other factors that are commonly associated with low SES that may indirectly effect the development of children with ACP include exposure to aggressive adult models, maternal values reflecting acceptance of aggression, family life stressors, low maternal social support, peer group instability, and lack of cognitive stimulation (Dodge et al., 1994b).

Disadvantaged Neighborhoods

Disadvantaged neighborhoods are characterized by dilapidated housing, high crime rates, isolation, lack of economic resources, concentration of poverty, and generally unsafe conditions. These types of neighborhoods are directly and indirectly associated with increased rates of aggression, violence, crime, and risk taking in children and adolescents (Greenberg, Lengua, Coie, Pinderhughes, & Conduct Problems Prevention Research Group, 1999; Kupersmidt, Griesler, DeRosier, Patterson, & Davis, 1995; Leventhal & Brooks-Gunn, 2000; Paschall & Hubbard, 1998; Peeples & Loeber, 1994). Kupersmidt et al. (1995) found that low SES/single-parent African American families living in disadvantaged neighborhoods had children with higher levels of aggression than families with the same attributes living in middle-class neighborhoods. This finding suggests that a neighborhood exerts powerful influences on the expression of aggressive behavior. Race/ethnicity by itself does not correlate with ACP behavior in children when the effects of disadvantaged neighborhoods are controlled (Greenberg et al., 1999; Peeples & Loeber, 1994). As with poverty, however, minority youth are disproportionately represented in disadvantaged neighborhoods and therefore may be at greater risk for that reason.

It could be that stressors and other problems related to living in disadvantaged neighborhoods are the actual influence impacting children. This includes families having less access to resources (e.g., effective schools, quality child care, mental health services), parents being stressed out, lack of social connections, increased opportunity for negative peer influences, and limited community supports for children and families (see Leventhal & Brooks-Gunn, 2000, for more details).

Community Violence

Community violence includes crimes such as assault, robbery, and murder/attempted murder, as well as crime-related events such as hearing gunshots and seeing a dead body. The rates of child exposure to community violence, which occurs primarily in disadvantaged neighborhoods, are increasing (Osofsky, 1995). Exposure to violence has a negative impact on children and is directly associated with children developing aggression, depression, and posttraumatic stress disorder (i.e., "reliving" bad experiences, anxiety, intrusive thoughts, avoidance) (Fitzpatrick, 1997a; Gorman-Smith & Tolan, 1998; Lynch & Cicchetti, 1998; Miller, Wasserman, Neugebauer, Gorman-Smith, & Kamboukos, 1999). Children who witness violence are also more likely to experience violence and/or physical abuse themselves (Fitzpatrick, 1997a; Lynch & Cicchetti, 1998). It may also be the case that aggressive youth are drawn to environments in which violence regularly occurs, that exposure to violence or the experience of violence changes their normative beliefs about the acceptability of aggression, and that they are exposed to aggressive role models (Gorman-Smith & Tolan, 1998).

Witnessing violence or being the victim of violence seems to effect children in different ways. For example, Schwartz and Proctor (2000) found that school-age children who witness violence exhibit social–cognitive distortions/deficiencies and are prone to aggression. They also found that school-age children who are victims of violence exhibit emotion disregulation and are prone to social difficulties.

Stressful Life Events

Stressful life events include such negative things as parental separation, exposure to violence, and daily hassles such as arguments with teachers, transportation problems, and so on. School-age children from low-income, disadvantaged neighborhoods experience more negative events and daily hassles than do children from advantaged neighborhoods (Attar, Guerra, & Tolan, 1994; Dubow, Edwards, & Ippolito, 1997). Children who experience high levels of stressful events are at risk to develop ACP regardless of their gender, ethnicity, or grade level (Attar et al., 1994). The combination of high stressful life events and a belief in aggression to cope with problems predicts ACP in children; this is true regardless of ethnicity (Guerra et al., 1995). Stressful life events are also frequently seen in mothers who are depressed (Pianta & Egeland, 1994). Perhaps experiencing stressful events reduces the coping capabilities of children and parents and makes them more vulnerable.

School Factors

Walker, Colvin, and Ramsey (1995) reviewed school factors that appear to be associated with children who display ACP behaviors in school. These school factors could be related to the exacerbation of problems for children with ACP. First, schools react to "unprepared" children. Schools traditionally do not provide proactive programs that prevent children from developing problems; instead, they wait until children cross a line or threshold indicating significant/entrenched problems, and then they try to remediate the difficulty. Unfortunately, children with ACP often have very significant and entrenched problems by the time they are identified by schools. Second, schools often use punishment/exclusion methods to deter children's behavioral problems—for example, suspensions and segregation into special classrooms. Although these procedures may help to maintain order in school, their affect on children with ACP is mixed. Children with ACP who experience these events may end up feeling more alienated and discouraged, causing them to pull away from the prosocial school institution as a source of reinforcement and belonging. In particular, the common practice of aggregating problem children or adolescents together in classrooms could be more detrimental than helpful to them (see Peer Affiliations, above, and Dishion et al., 1999). Third, schools label children to determine their eligibility for services. This may help the school system make orderly decisions about allocating limited resources, but ultimately could have a negative effect on children with ACP. Labels may further alienate these children and create a self-fulfilling prophecy. Fourth, parents of children with ACP are often reluctant to become involved in the school process since school officials often focus on their child's negative behavior, which makes them feel blamed and/or defensive. Walker and colleagues (1995) argued that school factors likely pose additional risks and/or stresses that accelerate the problems of children with ACP.

The quality of the relationship between a child with ACP and his or her teacher can also be a risk factor. In an innovative study, Hughes, Cavell, and Jackson (1999) assessed teacher–child relationship quality in second- and third-grade aggressive children and subsequently followed them for several years. Hughes and colleagues reviewed research that revealed teachers are often negative in their interactions with children with ACP. Perhaps these negative teacher–child interactions are related to the persistence of ACP symptoms. Hughes and colleagues found that those children with ACP who had a poor relationship with their teacher were more likely to maintain aggression, while the opposite was true of children with ACP who experienced a positive teacher–child relationship. The Hughes and colleagues study does not provide evidence of causation. It could be that poor teacher–child relationships cause persistence in children with ACP, or that these children tend to have more negative teacher–child relationships because of their persistent ACP. The influence of teacher–child relationships on children with ACP merits further study.

Other Societywide Influences

Our discussion of larger societal influences on children with ACP begins with mass media, in particular, the effects of television. Reviews by Donnerstein, Slaby, and Eron (1994), Hughes and Hasbrouck (1996), and Villani (2001) have summarized decades of available laboratory, experimental, and correlational research on this topic. A variety of conclusions can be reached about the effects of television. First, children frequently watch violent television, especially if they are left unsupervised. They are therefore exposed to a large amount of observed violence. Second, television violence is directly related to aggressive attitudes and aggressive behaviors in children. Children who watch violent television view violence as normative and are prone to be aggressive. Third, aggressive children are attracted to violent television. This likely reinforces already present attitudes and beliefs about violence, and may serve to maintain or accelerate aggression in these children. Television violence is a risk factor that can influence aggression in children. Other violent media (e.g., video games, music, etc.) could also exert a similar influence.

The availability of guns and other weapons in our society has been implicated in the violent behavior of children. Berkowitz (1994) summarized the literature pertaining to guns and youth. He concluded that guns are readily available in our society and access to them increases the likelihood of violence and/or suicide among youth. Guns and other weapons obviously contribute to the lethality of aggression and violent acts.

Summary

Contextual factors are linked to early-onset ACP in children. These factors may provide a direct or indirect influence on their development. Low SES, disadvantaged neighborhoods, community violence, and associated life stressors make children and families more vulnerable. The school system response, media influences, and accessibility of guns and other weapons add to the risk equation.

Interventions must deal with the full realm of potential influences on the development of ACP in children. This includes the more distal and elusive effects of contextual risk factors. For example, if the family of a child with ACP is poor, and the child is experiencing violence at school, then these factors need to be attended to in intervention efforts. That family may benefit from involvement in supportive community-based programming, and that child may profit from a schoolwide conflict mediation intervention. Our later descriptions of interventions include community- and school-based interventions that address contextual problems.

CUMULATIVE RISK FACTORS

Table 2.1 summarizes the child biological risk factors; parent, parent–child interaction, and family risk factors; social interaction and peer risk factors; and contextual risk factors discussed in this chapter. Simple linear cause-and-effect relationships among risk factors with ACP outcomes in children cannot be assumed (Hinshaw & Anderson, 1996). It is likely that transactional and interactional relationships among these risk factors predict outcome. Some of these risk factors may be direct in their influence on outcome, while others may be indirect. Caution is also advised because most of the research summarized in this chapter pertains to boys who are overtly aggressive. Although exceptions were noted, more information regarding girls and ACP subtypes is needed. This summary is offered as a heuristic framework to focus intervention efforts in pertinent areas. Each risk factor listed in Table 2.1, if present, increases the probability of initial expression of maladjustment and escalation of ACP-related problems in children.

It is intuitive that the more risk factors from Table 2.1 that are present, the more likely the expression of ACP in children. Indeed, research does exist pertaining to the cumulative effects of risk on outcome for children

TABLE 2.1. Summary of Risk Factors Associated with Early-Onset Aggression and Conduct Problems in Children

Child biological risk factors

- Genetic predisposition
- CNS abnormalities, including possible frontal lobe dysfunction, biochemical differences, underarousal, and/or CNS assaults are implicated in different forms of aggression and ADHD

Parent, parent–child interaction, and family risk factors

- Parent characteristics including psychopathology (e.g., depression, antisocial behavior, and substance use/abuse), distorted cognitions, and stress
- Parent–child attachment problems
- Coercive parenting and family interactions
- Physical abuse and other forms of maltreatment
- Family problems, including marital difficulties, family violence, single parenthood, divorce/separation, and family instability

Social and peer risk factors

- Negative peer–child interactions
- Atypical emotion process
- Social information-processing deficiencies and distortions
- Rejection by prosocial peers
- Affiliation with aggressive/antisocial peers

Contextual risk factors

- Socioeconomic status/poverty
- Neighborhood problems
- Community violence
- Stressful life events
- Harmful school responses
- Violent media (television)
- Access to guns and weapons

Note. Simple linear cause-and-effect relationships among variables and child outcomes cannot be assumed. These variables likely interact and cumulate in their association with the development of aggression and conduct problems in children (see text for discussion).

with ACP. Deater-Deckard, Dodge, Bates, and Pettit (1998) studied European American and African American boys and girls in a community sample to examine influences of multiple risk factors on development of ACP. Twenty separate risk factors within the child, parent/family, peer, and social/cultural (contextual) domains were examined. They identified behavioral status and corresponding risk factors in children at ages 5 and 10. Looking at the entire sample, 18 of the 20 risk factors correlated with the ACP (externalizing) outcome at age 10. Each risk domain added incrementally to the expression of ACP so as to support a cumulative risk model. No gender differences were observed. There were ethnic differences, however, in that cumulative risk was a better predictor of ACP for European American than for African American children. The parent/family variables did not predict as strongly for African American children as for European American children. The Deater-Deckard and colleagues (1998) data did not support any one particular pathway to ACP outcomes or any one risk factor as the strongest predictor. Other studies have also shown that cumulative risk is a stronger predictor of maladjustment than single risk factors (Fitzpatrick, 1997b; Greenberg et al., 1999; Shaw et al., 2001). More research is needed to replicate these findings and further examine ethnicity as a moderating variable for outcome.

DEVELOPMENT OF RESILIENCE IN CHILDREN

Resilience is positive adjustment occurring under circumstances of risk and/or stress (Cummings et al., 2000; Masten & Coatsworth, 1998). It is observed when the adaptive capacity of a child exceeds the level of risk and stress to which he or she is exposed. It involves a child utilizing available internal and external resources to master developmental tasks at different stages of development. Resilience seems to result from a combination of internal and external resources that function as protective factors, buffering or insulating the child in the face of risk.

Interventions will be more successful if they not only reduce the risk factors associated with maladjustment, but also promote the protective factors observed in resilient children. In this section we review research illuminating which factors promote adaptive development in at-risk children. We begin by reviewing several studies that identify protective factors in children faced with known risk factors related to ACP development (e.g., being an aggressive child, having substance-abusing parents, living in a harsh home environment or a disadvantaged neighborhood, facing multiple risks). We conclude with Masten and Coatsworth's (1998) summary of characteristics of resilient children. Once these protective factors are identified, interventions can be developed to promote them in children.

Protection from the Aggressive Child Characteristic

The aggressive child characteristic is a risk indicator for additional maladjustment. Several studies have found that certain protective factors can buffer the effects of the aggressive child characteristic. A study by Morrison, Robertson, and Harding (1998) examined low-income Latino children who were identified as aggressive. In this study, half of the aggressive children were showing good school and academic adjustment (e.g., they were resilient), and half were showing poor school and academic adjustment (e.g., they were maladjusted). The resilient group of children had high self-concept, had good support systems, and was closely supervised by parents when not in school. Supervision by parents turned out to be the strongest variable in its relationship to good school/academic adjustment in aggressive children. Another study by Hastings et al. (2000) followed aggressive children from preschool through later elementary school. They found that those children who exhibited concern for others (i.e., empathy) evidenced reductions in aggression across time. The authors concluded that showing concern for others is a protective factor in these children. Finally, a study by Kokko and Pulkkinen (2000) followed aggressive children into adulthood. They found that aggressive children whose parents utilized "child-centered parenting" and who had higher levels of prosocial behavior had better adult outcomes (e.g., less unemployment and fewer adjustment problems) than those aggressive children without those protective factors.

Protection from Substance-Abusing Parents

Earlier we pointed out that having parents who abuse substances is a risk factor for the development of ACP. Brook and colleagues (Brook, Balka, Brook, Win, & Gursen, 1998a; Brook, Whiteman, Balka, Win, & Gursen, 1998b) examined the role of ethnic identification as a protective factor with adolescents who are at risk for delinquency and substance abuse. Brook et al. found that adolescents who lived with parents who use drugs or who associated with peers who use drugs were at risk. African American (Brook et al., 1998a) and Puerto Rican (Brook et al., 1998b) adolescents living in an urban setting were less likely to use drugs if they had a strong ethnic identification. The adolescents who had a strong sense of and attachment to their communities and cultures were less likely to engage in delinquent behavior and drug use. Brook and colleagues argued that ethnic identification serves as a protective factor.

Vitaro, Dobkin, Carbonneau, and Tremblay (1996) studied resilient boys within a population of sons of male alcoholics (SOMAs). These SOMAs were studied longitudinally from age 6 to age 14. Resilient SOMAs, compared to maladjusted SOMAs (i.e., children who later developed delinquency, substance abuse, school problems), had better educated mothers, were more closely supervised/monitored in early adolescence, and had parents who did not use punishment methods during late adolescence. The resilient SOMAs exhibited better school and social adjustment.

Protection from Harsh Home Environment

The negative effects of difficult and stressful home environments on children's development are well known. Schwartz, Dodge, Pettit, Bates, and the Conduct Problems Prevention Research Group (2000) examined the role of friendship in possibly influencing the relationship between early "harsh home environment" (characterized by harsh discipline, child abuse, marital conflict, and daily hassles) and later peer victimization (being teased and bullied by other children) in aggressive and nonaggressive children using a longitudinal design. Harsh home environment predicted later peer victimization in both aggressive and nonaggressive children who did not have friends. It was not related to later peer victimization for either aggressive or nonaggressive children if they did have friends. Schwartz and colleagues argued that friendship serves as a protective factor that reduces the potentially negative effects of early harsh home environment, even among aggressive children.

Protection from Neighborhood Disadvantage

In the preceding discussions of risk, we observed that neighborhood factors do relate to the development of ACP in children. Kupersmidt and colleagues (1995) studied the influence of neighborhood on elementary-age children who came from low-income, single-parent, African American families. These researchers determined that children who were living in middle socioeconomic neighborhoods were less aggressive than children living in disadvantaged neighborhoods. Kupersmidt and colleagues hypothesized that middle socioeconomic neighborhoods serve as a protective factor against developing aggressive behavior.

Protection from Multiple Risks

Researchers affiliated with the Rochester Child Resiliency Project (Wyman, Cowen, Work, & Parker, 1991; Wyman et al., 1999) have conducted several studies with children who are experiencing major life stressors while living in poor urban environments. They studied one group of 9- to 12-year-old children using a cross-sectional research design and one group of 7- to 9-year-old children using a longitudinal design. The researchers replicated certain child and parent protective factors for both groups of children. Child protective factors included having an easy temperament and having positive psychological characteristics such as perceived competence, positive self-view, empathy, and realistic control attributions. Parental protective factors included responsive parenting attitude, positive parent mental health, and competent parenting characterized by involvement, discipline consistency, and authoritative practices. Parents who were able to provide these parental protective factors for their children had good social support systems themselves within and outside of the family. No differences were found between black and white children as to the benefits of these protective factors (Magnus, Cowen, Wyman, Fagen, & Work, 1999a, 1999b).

Pettit, Bates, and Dodge (1997) determined the protective factors that can reduce the deleterious impact of the "family adversity" risk factor. Family adversity is defined as low SES, single parenthood, and other family stressors. Pettit and colleagues found that supportive parenting predicted long-term adjustment from kindergarten to sixth grade in children who experienced high family adversity. Supportive parenting included proactive teaching, calm discussions during discipline, warm parent–child relationships, and parents who were interested in and involved with their children's activities. Children who received supportive parenting achieved developmental competence in the behavioral, social, and academic areas.

Masten and colleagues (1999) studied children from elementary school age to late adolescence who faced severe and chronic adversity using a long-term longitudinal design. These children lived in urban settings, endorsed high frequency of stress, and experienced many traumas over their childhood. Masten et al. found that children who had a higher IQ and who received high-quality parenting (in terms of warmth, expectations, and structure) were protected against this adversity. Protective factors were associated with resilient developmental outcomes in the areas of academic, behavioral (conduct), and social domains. These resilient children evidenced developmental mastery and competence across time and in a wide variety of different developmental domains.

Benson, Scales, Leffert, and Roehlkepartain (1999) summarized a large survey study of adolescents across the United States, investigating the power of "developmental assets" as protective factors in the face of multiple risks. These researchers defined developmental assets as four external and four internal factors that are associated with positive development in youth. The four external factors include "support" (e.g., supportive families, adults, neighborhoods, and schools), "empowerment" (e.g., safe and facilitative community organizations and individuals within the community), "boundaries and expectations" (e.g., clear rules, clear consequences for breaking them, and clear expectations from families, schools, neighborhoods, and adult role models), and "constructive use of time" (e.g., useful and creative activities in youth, religious, and home environments). The four internal assets include "commitment to learning" (e.g., engaged and motivated at school, bonding to the school institution, and academic achievement), "positive values" (e.g., prosocial values), "social competencies" (e.g., interpersonal and cultural skills), and "positive identify" (e.g., self-esteem and a sense of accomplishment). These researchers administered the Search Institute Profiles of Student Life attitudes and behaviors survey during the 1996–1997 school year to approximately 99,000 sixth- through 12th-grade students in 212 U.S. communities across 25 states. The Search Institute survey measures the 40 development assets and various dimensions of risk, maladjustment, and adjustment in adolescence. As part of a larger study, Benson and colleagues (1999) also examined a subset of the larger sample that were exposed to high levels of risk to see if assets function as protective factors. Approximately 4,000 of the originally screened 99,000 students reported being exposed to five risk factors, including being alone at home a lot, television overexposure, experiencing physical abuse, having been the victim of violence, and being exposed to drinking parties in the home. The researchers found a linear relationship between the number of developmental assets that the youth reported and their level of adjustment within the context of adversity. The more developmental assets the at-risk children had, the less likely they were to manifest developmental or psychological problems, including antisocial behavior. In other words, the external and internal developmental assets served as protective factors for the at-risk adolescents.

Many studies have defined risk in terms of children experiencing stressful life events. Children who experience stressful life events are protected from developing ACP and other forms of maladjustment if they have family support (Dubow et al., 1997), family cohesion and closeness (Kliewer & Kung, 1998), and positive child dispositional characteristics (e.g., higher IQ, easy temperament) with positive family attributes (e.g., positive parent–child relationships and the opportunity for personal growth within the family) (Jackson & Frick, 1998).

Characteristics of Resilient Children

Masten and Coatsworth (1998) summarized 25 years of resilience research with school-age and adolescent children. The research examined focused on children who were confronted with a wide variety of risks and/or stressors. Masten and Coatsworth summarized those characteristics that essentially served as protective factors in deflecting at-risk children away from internalizing and externalizing maladjustment outcomes. Table 2.2 describes the individual, family, and extrafamilial (contextual) protective factors that have been replicated across studies reviewed by Masten and Coatsworth. The most often replicated protective factors for resilient children are high intelligence and having a good supportive relationship with a parenting figure. Masten and Coatsworth rightly pointed out that

TABLE 2.2. Characteristics of Resilient Children and Adolescents

Child

- Good intellectual functioning
- Appealing, sociable, easygoing disposition
- Self-efficacy, self-confidence, high self-esteem
- Talents
- Faith

Family

- Close relationship to caring parent figure
- Authoritative parenting: warmth, structure, high expectations
- Socioeconomic advantages
- Connections to extended supportive family networks

Extrafamilial context

- Bonds to prosocial adults outside the family
- Connections to prosocial organizations
- Attending effective schools

Note. From Masten and Coatsworth (1998). Copyright 1998 by the American Psychological Association. Reprinted by permission.

protective factors do not necessarily give evidence of cause and effect, but these protective factors are associated with resilient outcomes in at-risk children.

Summary

Protective factors reduce the likelihood of maladaptive development among children who are confronted with risk factors, thereby leading to resilient developmental outcomes. Certain protective factors guard against the risk factors that have been implicated in the development of ACP in children. These protective factors fall within the child, parent–child, social/peer, and contextual life domains (see Table 2.3).

Protective factors need to be enhanced in intervention efforts focused on children with ACP. Accordingly, interventions must build competencies within children and parents, arrange opportunities for positive development and prosocial peer influences, and promote community and school support for families. For example, a practitioner may be assisting a peer-rejected child with ACP who comes from a context of family adversity. Interventions that enhance the child's social competencies, teach parents effective discipline strategies, and provide support through school and community programs could potentially enable that child to divert to the resilient developmental pathway.

CONCLUSION AND IMPLICATIONS FOR INTERVENTION

Developmental Focus

Chapters 1 and 2 describe developmental processes, as well as risk and protective factors, that are associated with ACP and resilient developmental outcomes in children. Effective interventions must reduce risk and promote protection to enhance children's development (Cummings et al., 2000; Reid, 1993; Yoshikawa, 1994). Information regarding risk and protective factors, along with characteristic and developmental information about ACP, can be used to conceptually focus interventions for ACP children.

We offer Table 2.3 as a summary of risk and protective factors according to life domain. We include child characteristics (reviewed in Chapter 1) as risk factors because those characteristics place the child at heightened risk for escalation of problems (i.e., child characteristics are risk indicators). In truth, we do not understand the complex interactions of risk and protective factors. Therefore the summary offered in Table 2.3 is only a heuristic framework to suggest what should be targeted in interventions. If interventions are successful, children should evidence risk reduction and accumulate protection, which would increase the likelihood of them following a resilient developmental pathway (Cummings et al., 2000; Yoshikawa, 1994).

Multisystemic Interventions

An intensive model of intervention will be needed to accomplish the goal of reducing risk factors and increasing protective factors to enhance the developmental status of children with ACP. A multisystemic model of intervention (e.g., Henggeler et al., 1998) will serve as the framework for the remainder of this book in conducting assessment and intervention with children with ACP. Systems and social ecology theories inform the multisystemic model. In this model, the "system" includes all the internal and external factors that influence a child. The multisystemic model views the behaviors of children as a function of the interaction among subsystems of the larger system, and takes into account how child and environmental factors influence each other in a transactional manner over time. This includes the reciprocal influences of child, family, peers, school, neighborhood, and society. Interventions conducted within one subsystem will have direct and indirect influences on other subsystems. For example, by intervening at the neighborhood level, the practitioner will promote changes that will occur in other areas of influence that effect the child. Multisystemic interventions therefore simultaneously address multiple substystems to effect change.

In view of the literature summarized in Chapters 1 and 2, we agree

TABLE 2.3. A Summary of Risk and Protective Factors According to Life Domain

Life domain	Risk factors related to aggression and conduct problems[a]	Protective factors related to resilience[b]
Child	• Manifestation of an early form of aggression and/or conduct problems • Disinhibition • Callous/unemotional traits • Comorbid ADHD • Comorbid anxiety, depression, substance abuse, etc. • Comorbid academic problem (reading)	• Social, emotional, and self-regulation capacities and skills • High self-esteem and self-efficacy • Prosocial values • Academic skills and success
Parent/family	• Parent personal problems • Parent–child attachment problems • Parent–child coercive interactions • Physical abuse or maltreatment • Family problems	• Functioning parent • Close relationship with parental figure • Supportive and authoritative parenting • Adaptive parent–child interactions • Functional family relationships
Social/peer	• Deficient social skills • Atypical emotion processes • Social information-processing deficiencies/distortions • Rejection by prosocial peers • Affiliation with "deviant" peers	• Association with prosocial peers • Adaptive social interaction skills
Contextual	• Socioeconomic disadvantage • Neighborhood problems • Community violence • Stressful life events • Ineffective or harmful school responses • Violent media influences • Access to guns/weapons	• Bond with prosocial school and community institutions • Attend effective schools • Safe and organized neighborhoods • Opportunities for prosocial school and community activities • Access to effective community services (mental health, social services, etc.) • Prosocial media influences

[a] See review of characteristics (Chapter 1) and risk factors (Chapter 2) of this volume.

[b] See review of protective factors (Chapter 2) of this volume.

with Henggeler and colleagues' (1998) statement that interventions "must have the flexibility to address the multiple known determinants of antisocial behavior, . . . and intervene comprehensively at individual, family, peer, school, and possibly even neighborhood levels" (p. 8). Accordingly, we advocate that assessment and intervention activities for children with ACP must address the interplay of risk and protective factors in the child, parent/family, social/peer, and contextual life domains as summarized in Table 2.3 through a multisystemic intervention approach.

A Developmental–Multisystemic Model of Practice

Table 2.4 summarizes the hypothesized relationship between multisystemic interventions and risk and protective factors according to life domains. This table presents the "big picture" of the model that will be discussed in detail throughout the book. In Table 2.4 we hypothesize the relationships

TABLE 2.4. Summary of Interventions and Hypothesized Risk Factors That Are Reduced and Protective Factors That Are Promoted in Life Domains

	Child life domain		Parent/family life domain		Social/peer life domain		Contextual life domain	
Intervention	Reduce risk	Promote protection	Reduce risk	Promote protection	Reduce risk	Promote protection	Reduce risk	Promote protection
Social competence training (Chapter 4)	X	X			X	X		
Parent and family skills training (Chapter 5)	X	X	X	X	X	X		
Medications and restrictive treatments (Chapter 6)	X	X	X	X	X	X		
Academic engagement and skills building (Chapter 7)	X	X					X	X
Schoolwide interventions and peer mediation (Chapter 8)	X	X			X	X	X	X
Classroom interventions (Chapter 9)	X	X			X	X	X	X
Mentoring and after-school programs (Chapter 10)	X	X			X	X	X	X
Family support and therapeutic foster care programs (Chapter 10)	X	X	X	X			X	X
Multicomponent and coordinated service models (Chapter 11)	X	X	X	X	X	X	X	X

between interventions and global risk and protective factors. We do not address all of the specific risk and protective factors (e.g., Table 2.3). We reasoned that not enough is known about how interventions effect each specific risk and protective factor. We assume, however, that many of the specific risk and protective factors summarized in Table 2.3 are addressed by the interventions depicted in Table 2.4. We describe the specific interventions mentioned in Table 2.4, along with research and best practice parameters, in subsequent chapters.

In keeping with a multisystemic perspective, we think that interventions likely exert direct and indirect influences on risk and protective factors. Table 2.4 only summarizes what we believe are the direct effects. This model is offered simply as an organizational framework to guide interventions, for all the proposed relations among interventions and risk and protective factors have not been empirically tested. Furthermore, we recognize that most children with ACP will not need all these interventions, and that one practitioner could not possibly provide them all. Table 2.4 is a starting point in determining the many intervention options available according to the hypothesized risk and protective factors addressed.

Subsequent chapters will articulate the details of such a model of practice for children with ACP. Chapters 3 through 10 will describe assessment and intervention procedures that could be used to address risk and protective factors in the four life domains. Chapters 11 and 12 will attempt to integrate these practices into comprehensive, intensive, and engaging models of intervention.

PART II

ASSESSMENT AND IDENTIFICATION

CHAPTER 3

Assessment Procedures

The previous chapters discussed the characteristics, risk and protective factors, and developmental pathways of children with ACP. This discussion makes clear that there are multiple factors involved in the genesis, maintenance, and exacerbation of ACP behaviors and that children with ACP can differ from each other along multiple dimensions (e.g., developmental pathway, type of ACP behaviors, severity, and comobidity). The characteristic heterogeneity of children with ACP makes the matching of interventions to the specific needs of an individual child with ACP a challenging task. Assessment is the process by which the characteristics of a child with ACP and his or her environment are delineated, generally for the purpose of designing an effective intervention.

This chapter is divided into five sections. In the first section we address the different sources of information and methods used for assessment of children with ACP. We also discuss factors related to the selection of assessment methods. The second section discusses the effect of culture on assessments and how culture should be taken into account when assessing nonmajority children. In the next three sections we describe different types of assessments commonly used with children who exhibit ACP: comprehensive assessments of behavior, functioning, and risk/protective factors; functional behavioral assessments in schools; and screening for ACP. These sections discuss the purpose, information obtained, and procedures for each type of assessment. The information presented is useful for all practitioners working with children who manifest ACP. Even if not conducting assessments, practitioners need to be knowledgeable concerning assessment procedures to utilize assessment data in an accurate and productive manner.

SOURCES OF INFORMATION AND METHODS OF ASSESSMENT

To obtain a thorough assessment of children with ACP, practitioners need to utilize multiple sources of information and methods. In this section we describe the various sources and methods, present their advantages and limitations, and discuss factors affecting the selection of assessment methods. The information presented is summarized from reviews of research and assessment procedures by Anastasi and Urbina (1997), Frauenglass and Routh (1999), Groth-Marnat (1998), Hinshaw and Nigg (1999), Hinshaw and Zupan (1997), Kamphaus and Frick (1996), Kazdin (1995), Mash and Terdal (1997), and McMahon and Estes (1997).

Sources of Information

Obtaining information from multiple individuals in a child's life is necessary for several reasons. Whether you talk to a child, parent, or teacher, each will offer information that is unique and useful but also limited. The information provided by any one individual is likely to be influenced by multiple factors other than the child's actual behavior. So, for example, a mother's report will be tempered by her mood, beliefs, and amount of contact with the child. Also, a child's behavior varies depending on location or context (e.g., home or school). By talking to a range of people who experience the child in different contexts, the practitioner can better hone in on an accurate, detailed picture of the child's behavior.

Children

Children provide information for assessments through interviews, checklists, and tests that measure numerous factors, including cognitive ability, academic achievement, and emotional functioning. Self-report is utilized less with children than with adolescents and adults. There are fewer self-report measures for externalizing behaviors for children. Children provide information on their behavior; family, peer, and contextual factors; and their perceptions of the evaluation process, treatment, and expectations for improvement.

The accuracy and utility of information reported by children in interviews and on checklists varies by age, type of information sought, and the manner in which the information is obtained. Unfortunately, these variables have not been well studied. It has been found that compared to adults, children tend to underreport externalizing symptoms. In contrast, children are important sources for information on covert antisocial behavior and internalizing symptoms. There tends to be a low level of agreement between child ratings and those of parents and teachers. The reliability of child self-reports tends to increase with age.

Parents/Caregivers

For obvious reasons, parents are the most frequently used source of information for evaluating children with ACP. They provide information through interviews, checklists, and questionnaires on demographics, behavioral concerns, child and family history, family functioning, peer relations, and contextual factors. Parents tend to be better reporters of overt child behaviors than of covert behaviors, anxiety, and depression. Factors influencing the accuracy of parental reports include stress, psychopathology, marital discord, and self-esteem.

Parent judgments have been found to correlate with clinicians' judgments. There is often a high level of agreement between mother and father ratings. This level of agreement is lowered by family distress. Parents tend to agree with each other more on the number of problem behaviors than on the specific behaviors. The reliability of parent ratings tends to decrease as their child grows older. There is a common belief that maternal depression results in mothers overreporting behavior problems. However, a review by Richters (1992) questioned the accuracy of this belief. He pointed out that many studies supporting the overreporting hypothesis did not include independent ratings of child behavior and those that did failed to find the negative bias. Yet more recent studies have found a negative bias in depressed mothers' reports (see Boyle & Pickles, 1997; Youngstrom, Izard, & Ackerman, 1999; Youngstrom, Loeber, & Stouthamer-Loeber, 2000).

Teachers

Teachers can be very helpful in assessing children with ACP. Teachers provide information through checklists and interviews; for clinic-based assessments, the interviews are commonly completed over the phone. Teachers are not only the best source of information on children's academic functioning, they can also offer a unique perspective on behavioral and social functioning. Since teachers have extensive contact with many children, they can easily compare a child's behavioral and social functioning with that of his or her peers. In addition, the behavioral, social, and emotional challenges and expectations a child faces are different at school than at home. Consequently, a teacher's information is very helpful in identifying factors affecting ACP behavior. Teachers are able to provide information on the frequency, intensity, and duration of behaviors, along with the effect of peer and school contextual factors.

The agreement between teachers' and parents' ratings is somewhat low. The different ratings may reflect the effect of contextual factors on the child's behavior rather than indicating invalid or unreliable ratings. There is greater agreement between teachers and parents on global ratings (ratings at the diagnostic level) than on ratings of individual symptoms. Teachers and parents tend to agree more on externalizing behavior than on internalizing behavior. The reliability of teacher ratings tends to decrease with older children. Teacher estimates of children's peer status correlate at a low level with peer sociometric ratings. Teachers also display a negative halo effect when children engage in oppositional behavior: teachers tend to inaccurately rate oppositional children as also exhibiting inattention/hyperactive behavior. A recent study found that using a well-operationalized rating scale reduces this effect (Stevens, Quittner, & Abikoff, 1998).

Peers

Peer-referenced assessment strategies involve evaluating how a child's peers perceive the child's functioning. Peer nomination is the most commonly used form of peer-referenced assessment. This procedure requires children in a classroom to select one or more peers who display a certain characteristic or behavior (e.g., helps other children). How many times a particular child is selected is then compared to norms for the procedure. Sociometric techniques are peer nominations focused on social status. Peers are asked to select a child who is liked most (e.g., most like to have as a friend) or liked least (e. g., least like to have as a friend). Peer ratings correlate with independent evaluations of adjustment and predict future conduct problems. Yet, information from peers is generally not available in clinical practice due to ethical considerations and logistical constraints. Another limiting factor is the lack of availability of standardized, well-normed peer-referenced assessment procedures.

Records

School, court, and medical records have long been used as indictors of the existence and severity of ACP; they have also been used as outcome measures to evaluate interventions. The data obtained from these records include school attendance, grades, suspensions, school discipline referrals, police contacts, arrests, medical history, illnesses and injuries, and medications. Many of these factors represent socially significant measures of the impact of ACP and interventions. This data provides information on current and past functioning in different settings. One limitation of records is that most antisocial behavior is not observed or recorded. Therefore what appears in records may offer an incomplete representation of actual behavior. Also, records, like observations and rating scales, are subject to bias. Table 3.1 summarizes sources of information used in the assessment of children with ACP.

Interviews

Interviews are the most widely used method for assessment. Parents, children, and teachers can all be interviewed, as well as any individual who has

TABLE 3.1. Sources of Information for Assessments of Children with Aggression and Conduct Problems

Children

- Information obtained with interviews, rating scales, and tests of cognitive and emotional functioning
- Good source of information on internalizing symptoms, covert behaviors, child's perceptions of problems, and family, peer, and contextual factors
- Low level of agreement with parent and teacher ratings

Parents/caregivers

- Information obtained with interviews and rating scales
- Good source of information on externalizing behaviors, developmental and medical history, and family, peer, and contextual factors
- Accuracy influenced by stress, psychopathology, marital discord, and possibly maternal depression

Teachers

- Information obtained with interviews and rating scales
- Good source of information on academic performance, school behavior, and peer and school contextual factors
- Tendency to inaccurately rate children with oppositional behavior as also exhibiting inattentive/hyperactive behavior

Peers

- Information obtained with peer nomination and sociometric ratings
- Good source of information on peer status
- Peer ratings correlate positively with independent evaluation of adjustment
- Information often unavailable due to practical constraints

Records

- Information obtained by reviewing school, medical, and legal records
- Good source of information on socially significant indicators of ACP such as school discipline referrals and police contacts
- Accuracy is limited because much antisocial behavior is not observed/recorded

significant contact with the child, such as day care providers or relatives. Interviews vary in the amount of flexibility afforded the practitioner and are categorized as unstructured, semistructured, or structured.

Unstructured Interviews

The unstructured interview is most frequently used and relies on the practitioner to use clinical judgment to determine the topics covered, the wording of questions, and the diagnosis given. As a result, the information obtained by different practitioners varies. The main advantage of the unstructured interview is the flexibility it allows the assessor in obtaining information judged to be relevant. This permits exploration of specific family, peer, and contextual factors that may be of vital importance. It also allows the practitioner to respond to the informant's needs and goals in order to maximize rapport and cooperation.

Like other methods of gathering information, unstructured interviews are susceptible to biased or inaccurate information being provided by the informant, as well as bias and judgment error on the part of the practitioner. The effective use of unstructured interviews requires much skill. Studies of both interinterviewer agreement and interview validity report results ranging from poor to excellent. Potential problems with reliability and validity suggest that information from interviews should be used to form hypotheses that are best supported with other data.

UNSTRUCTURED INTERVIEWS WITH PARENTS/CARETAKERS

The unstructured interview with a parent is an extremely important component of most assessments of children with ACP. It involves balancing the goal of obtaining a large amount of information with the need to establish rapport and attend to the parent's goals for the interview. The practitioner should be aware of and sensitive to the expectations, motivations, and affective responses of the parent. Some practitioners find it helpful to have parents complete checklists and questionnaires prior to the interview; the information so gathered can then be used to guide parts of the interview and to utilize the interview time efficiently.

In two-parent families it can be helpful to have both parents present. This allows the practitioner to obtain information on the child's interactions with both parents, observe the level of agreement/disagreement between parents on issues related to the child, and see the marital interaction *in vivo*. A clinician could opt to include members of the extended family if they play a major role in the child's life. Some practitioners prefer to have the child present during the interview to observe parent–child interactions. Others deliberately exclude the child so that parents can discuss issues more freely and/or to prevent the child's ACP behaviors from interrupting the interview. A third option is to have the child present for only part of the interview.

The interview begins with an explanation of the purpose and format of the interview and assessment process. Telling the parents why certain information is needed and how it will be helpful can increase parents' cooperation and the amount of information they provide. Parents are next asked to present their concerns and what they hope to achieve with the assessment and intervention process. Following this, parents are questioned about the child's current and past behaviors; the child's family, medical, and development history; and family, peer, and contextual factors. Details on the information elicited are presented in the section on assessment of behavior, functioning, and risk/protective factors.

UNSTRUCTURED INTERVIEWS WITH CHILDREN

The child's developmental level determines how the unstructured interview is conducted (Bierman, 1983). It can be made more developmentally appropriate for younger children by simplifying questions and the responses required. For example, open-ended questions, especially "how" or "why" questions, can be difficult for younger children. Providing options for the child to select from can be a more productive way to elicit information. Putting the child at ease and establishing rapport are essential if the practitioner is to elicit clinically significant information. Depending on the age of the child, this may involve an initial play period or even allowing the child to play while responding to questions. Questions concerning what the child enjoys and finds rewarding can serve the dual purpose of establishing rapport and identifying potential reinforcements for use in interventions.

The practitioner will commonly elicit the child's degree of awareness and perception of the presenting problems, emotional functioning, family and peer relationships, and school issues. It is helpful to assess whether the child is motivated to make changes and what the child would want to change. Information is obtained not only from the child's verbal responses, but also from observing the child's behavior during the interview. The practitioner should note how well the child attends, follows directions, interacts with the practitioner, and provides information. Based on observations, the practitioner forms initial impressions of the child's level of receptive and expressive language skills, general cognitive level, understanding of relationships and emotions, and ability to take part in interventions.

UNSTRUCTURED INTERVIEWS WITH TEACHERS

Teacher interviews are frequently conducted over the phone after checklists have been completed and reviewed. The information requested focuses on school behavior, factors affecting that behavior, academic functioning, and options available for school interventions. Further details on the information obtained are presented in Table 3.6.

Semistructured Interviews

Semistructured interviews are somewhat more standardized than unstructured interviews. They provide the practitioner with content areas and sometimes with specific questions. This increases the standardization of the process and assures that important content areas are covered. By specifying content, it reduces the demand for practitioner skill, but does not eliminate it. Skill is still required to establish rapport, recognize and respond to informants' needs and goals, and formulate follow-up questions. Scoring criteria may or may not be included. An example of this type of interview is the

Semistructured Clinical Interview for Children and Adolescents (McConaughy & Achenbach, 1994), a protocol of open-ended questions used with children and adolescents ages 6 to 18. It is scored in a manner similar to the Child Behavior Checklist, with scales for observed behavior and self-reported problems.

Structured Interviews

Structured interviews specify the content areas covered and the wording of questions and probes; some even provide algorithms for determining a diagnosis. Trained practitioners are required to conduct some structured interviews. Most structured interviews have both a child and a parent version. They tend to focus on gathering information for the purpose of making categorical diagnoses.

The advantages of structured interviews include their ability to generate a more consistent set of information, specify onset and duration of symptoms, elicit information useful for diagnosis, and provide information on a broad range of symptoms and comorbidity. In addition, some provide standardized methods for scoring, integrating data, and determining diagnoses. The disadvantages of structured interviews include the time involved in training and monitoring of cross-interviewer agreement, the tendency to overdiagnosis (this is reduced if level of impairment or functional level is assessed), and questionable reliability with children under age 9. Additionally, structured interviews tend to generate limited information on family, peer, and contextual factors.

Though essential for research, the clinical utility of structured interviews is not clear, in large part due to the limited attention to contextual factors. The reliability and validity of structured interviews varies by instrument and by diagnosis. A test–retest attenuation effect has been found: informants, especially children ages 6 to 9, report fewer symptoms on repeat administration of the interviews. Hodges (1993) concluded that more research is needed before it can be assumed that structured interviews are reliable and valid.

Structured interviews used to assess children with ACP include the Diagnostic Interview for Children and Adolescents (DISC) and its revisions (Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000), as well as the Diagnostic Interview for Children and Adolescents (DICA; Reich, 2000).

Behavior Rating Scales

Behavior rating scales or checklists require informants to judge behaviors in terms of their presence or absence (yes or no) or their severity/frequency (Likert-type ratings). The informant is required to recall and combine memories of behaviors. They provide a quantitative index of the informant's global impression of the child's behavior. Rating scales lend themselves to dimensional classification more so than to categorical classification. Children, parents, and teachers commonly complete rating scales. They are typically used as a first step in an assessment to provide an overview of symptoms, to guide questioning during a clinical interview, and as measures of intervention outcomes.

Due to their many advantages, rating scales are considered a necessary part of assessments for children with ACP. They can cover a broad range of behaviors and are easily quantifiable to allow for normative comparisons. Many rating scales, especially broad rating scales, have very good psychometric properties and strong research support. They are easy and inexpensive to administer and to score, and they allow for the perceptions of others in the child's life to be incorporated into the assessment.

But rating scales also have a number of limitations that need to be taken into consideration. While necessary, they are not sufficient for assessments of children with ACP. Rating scales provide global impressions, not situation-specific information. This can be an advantage or a disadvantage, depending on the purpose of the evaluation. The items on rating scales generally do not parallel diagnostic criteria and they do not generate sufficient information from which to make diagnoses. Rating scales commonly provide limited information on the onset and duration of symptoms. Moreover, there is generally only modest agreement between different informants' ratings of the same child. It is not known whether this is due to differences in the child's behavior in different settings or to other factors.

Rating scales are open to biased reporting by the informant. Hinshaw and Zupan (1997) listed four potential biasing factors: (1) informants' subjective interpretations of specific items; (2) informants' high level of distress; (3) informant's beliefs about disruptive behaviors; and (4) the halo effect (i.e., systematic high or low ratings). Due to potential bias, the use of rating scales as outcome measures for interventions is problematic when the informant (child, parent, or teacher) is involved in the intervention. The informant's motivation and potential biasing factors need to be taken into account when interpreting rating scale information.

Broad Rating Scales

There are two general categories of rating scales: broad/comprehensive and narrow. Broad or comprehensive rating scales survey a wide range of behaviors and are helpful in screening for behavior problems and for identifying comorbidity. Broad rating scales commonly have well-established reliability, validity, and norms. The specific scales on broad rating scales often lack the differentiation present on narrow rating scales. For example, the Attention Problems scale of the Child Behavior Checklist (CBCL) includes items related to inattention, impulsivity, and hyperactivity. These dimensions are not assessed separately as they are on the ADHD Rating Scale–IV (DuPaul, Power, & Anastopoulos, 1998), a narrow rating scale. Broad rating scales commonly used in assessing children with ACP include parent, teacher, and child forms of the CBCL (Achenbach & McConaughy, 1997), Behavioral Assessment System for Children (Reynolds & Kamphaus, 1992), and Conners Rating Scales—Revised (Conners, 2000), as well as the Revised Behavior Problem Checklist (Quay & Peterson, 1987) that can be completed by parents or teachers.

Narrow Rating Scales

These measures focus on one dimension or diagnosis and provide greater specificity in that area. Narrow rating scales generally are shorter, can be repeatedly completed to monitor the effects of interventions, and commonly do not have well-established reliability, validity, and norms. The norms are often not representative of the population, which can limit their utility, especially with minority groups. Narrow rating scales have been developed for evaluating ACP behaviors and many factors related to ACP. Rating scales limited to ACP behaviors with children have not been widely used clinically. Examples of narrow rating scales include the Eyberg Child Behavior Inventory (Eyberg, 1992) and the ADHD Rating Scale–IV (DuPaul et al., 1998).

Direct Observation

In large part due to the potential for bias in child and adult reports of behavior, direct observation is used as a source of information in evaluating children with ACP. Direct observation generally involves recording behavior as it occurs, the use of trained and impartial observers who follow clearly defined rules and procedures, and the coding of behaviors using categories that require minimal inference. This type of data can be collected or measured using five methods: (1) narrative recording (describing what happens); (2) frequency/event recording (recording how often a specific behavior occurs in a given time period); (3) interval recording/time sampling (recording whether a behavior occurs in a given time period); (4) duration or latency recording (recording the length of a behavioral occurrence); and (5) permanent products (recording the lasting products of a behavior—e.g., broken pencils) (Stein & Karno, 1994). Direct observation can take place in the clinic, school, or home. Each setting has its own properties that effect the information obtained (see McMahon & Estes, 1997, pp. 153–164). Direct observation is most commonly used in research and by practitioners working in school settings. Though desirable in clinical practice, it is often impractical.

Direct observation in the clinic generally involves use of a one-way window and is focused on parent–child interactions. A number of complex, microanalytic observation procedures have been developed for research. One example is the system developed by Forehand and colleagues (Forehand & McMahon, 1981). The parent and child are observed through a one-way window in a playroom. A 5-minute free-play situation is followed by a 5-minute parent-directed situation, during which six parent behaviors and three child behaviors are recorded. Clinic observation systems tend to use complex coding systems and require lengthy training of observers. However, many of the clinic observation procedures have modifications that allow for their use in the home.

Some of the complex systems have been adapted for use in schools, but schools tend to use simpler forms. One example is the Direct Observation Form of the CBCL (Achenbach, 1991). Three to six 10-minute observations are made covering different days and different times of the day. The observer writes a narrative description of the child's general behavior and records on-task behavior. Following the period of observation, the observer rates the child's behavior on the Direct Observation Form. This process yields scores similar to those on the CBCL. Another example of a school direct observation procedure is described in the section on functional behavioral assessments.

Direct observation has many advantages. It allows for greater objectivity by attempting to reduce the effects of judgment and memory. It can provide information on the frequency and duration of behaviors, along with data concerning environmental factors related to the maintenance and exacerbation of the problem behavior. Direct observation is especially helpful for the practitioner when he or she questions the reliability of informants or is faced with discrepancies among informants.

Nonetheless, it cannot be assumed that direct observation is necessarily more accurate than rating forms and interviews. Observation is often limited because it does not sample broadly across multiple behaviors or multiple settings. The coding system used may not accurately reflect the salience or significance of behaviors or environmental factors. The observation of brief units of behavior may not accurately reflect the context or meaning of the behavior. Moreover, the act of being observed will often change an individual's or a family's behavior. Observation only allows for evaluation of observable and immediate controlling events and not factors more remote in time or not observable. Direct observation is not helpful with infrequent or covert behaviors. It is time-consuming and costly due to the need for training of observers, the need to evaluate and maintain interobserver agreement, and in most cases the need to travel to the child's school or home. Studies have shown that even when a high level of interobserver reliability can be demonstrated, the level of agreement can drop when observers are not aware they are being monitored.

Projective Methods

Research shows most projective tests to have poor psychometric qualities, yet they remain popular in clinical practice. Projective methods involve a child completing unstructured tasks for which there are no right or wrong solutions. It is hypothesized that how the child perceives and organizes test stimuli reflects basic aspects of that child's psychological functioning. Projective methods have a long history in the assessment of children and include tasks such as drawing (e.g., human figure drawing, Koppitz, 1968; House–Tree–Person [Buck, 1948]), storytelling (e.g., Children's Apperception Test [Bellak & Bellak, 1966]; Roberts Apperception Test for Children [McArthur & Roberts, 1982]), completing sentences (e.g., Rotter Incomplete Sentence Blank [Rotter & Rafferty, 1950]), and describing what they see in ambiguous forms (e.g., Rorschach [Exner, 1993]).

In the hands of skilled practitioners, projective methods can provide useful clinical information related to a child's motivations, desires, conflicts, and perceptions. They can be helpful in developing clinical impressions and in generating hypotheses about a child's functioning. Projective methods can provide information not available with more behaviorally oriented methods. They are not helpful in defining current externalizing behavior, but may be helpful in exploring comorbidity and internalizing symptoms.

Projective methods have historically been limited by concerns with reliability and validity. Progress has been made in regards to reliability and validity with some projective methods, such as the Rorschach using Exner's Comprehensive System (Exner, 1993). Many projective methods lack adequate standardization and are not used in clinical practice in a standard manner. There is generally a lack of objective scoring and interpretation, and most lack adequate norms. Another concern is the time and expense involved in their administration and interpretation.

Anastasi and Urbina (1997) concluded that with few exceptions (e.g., the Rorschach using Exner's system) projective methods are more properly considered "clinical tools" rather than tests. Their value depends to a great extent on the skills of the clinician using them. Anastasi and Urbina see similarities between projective methods and interviewing and view projective methods as serving as qualitative interviewing aids. Factors influencing the decision regarding whether to include projective measures in an assessment of a children with ACP include the purpose of the evaluation, the type of information needed, the skills of the assessor, and the incremental utility provided by the projective method.

Tests of Intelligence, Academic Achievement, and Neuropsychological Functioning

Academic and learning problems are associated with negative outcomes for children with ACP and as a result are potential targets for interventions. If information from interviews or rating scales reveals concerns with academic functioning, further assessment is indicated. Assessments will commonly consist of tests of intellectual ability and academic achievement. Tests of intelligence measure various skills such as reasoning, planning, problem solving, abstract thinking, and speed of learning and processing of information. Scores on these tests correlate positively with school success. Commonly used tests of intellectual ability include the Wechsler Intelligence Scale for Children–III (Wechsler, 1991), the Stanford–Binet Intelligence Scale, Fourth Edition (Thorndike, Hagen, & Sattler, 1996), and the Kaufman Assessment Battery for Children (Kaufman & Kaufman, 1983). Tests of academic achievement measure knowledge of subjects taught in school. Frequently used tests include the Woodcock–Johnson—III Tests of Achievement (Woodcock, McGrew, & Mather, 2001), the Wechsler Individual Achievement Test (Psychological Corporation, 1992), and the Wide Range Achievement Test—Revision 3 (Wilkinson, 1993). These tests generally have high levels of reliability and validity.

Tests of intellectual ability have a number of limitations. Scores can be affected by numerous child and setting variables such as motivation, impulsivity, confidence, and comfort with the examiner. As a result, they must be interpreted in light of these factors and compared to other measures and indicators of ability and achievement to determine their accuracy. Most commonly used tests of intellectual ability assess a limited number of abilities and thus do not provide a comprehensive view of a child's intelligence. These tests have also been criticized for their failure to inform decisions concerning educational interventions, group differences among racial and cultural groups, and their role in the overrepresentation of minority students in special education (Canter, 1997; Frisby, 1999; Reschly, 1997).

If intellectual and academic achievement testing has not adequately defined deficits and targets for interventions, more fine-grained learning disabilities or neuropsychological testing is warranted. Neuropsychological testing assesses a wide range of abilities, including intellectual, academic, memory, language, attention, executive functioning, visuospatial, and sensorimotor (Bengtson & Boll, 2001). It has not been found effective in diagnosing ADHD (Doyle, Biederman, Seidman, Weber, & Faraone, 2000), but is useful for identifying cognitive processes that can be targeted with interventions. Table 3.2 summarizes the instruments and methods used to assess children with ACP.

Selecting Assessment Instruments and Methods

There is no one set of ideal instruments and methods to assess children with ACP. The best approach to use with a particular child will vary depending on the purpose of the assessment (e.g., screening, determining a diagnosis, developing interventions), characteristics of the child (e.g., age, ethnicity, level of cooperation), and practical concerns (e.g., time and resources available, skills of the practitioner, availability of informants). In addition to these factors, the selection of assessment instruments and methods should be informed by the need for multiple methods and multiple informants, the psychometric qualities of the measures, and the type of classification desired.

Multiple Sources and Methods

Each source of information and method of assessment has its strengths and limitations. In addition, ACP behavior varies significantly from one setting and context to another. As a result of these two factors, it is recommended that multiple sources and methods be used when assessing children with ACP.

Multiple informants or sources of information are recommended for two reasons. First, there is a potential for bias and inaccuracy in any one source of information. Efforts can be made to limit the effects of bias by identifying factors that potentially influence an informant's report (e.g., motivation, beliefs about diagnosing children, stress level) and interpreting the data accordingly. However, combining the identification of factors affecting the accuracy of reports with information from multiple informants will produce the most complete and accurate assessment. The second reason for utilizing multiple informants is that ACP behavior varies greatly depending on the setting and the context. As a result, information from

TABLE 3.2. Methods Used in Assessment of Children with Aggression and Conduct Problems

Unstructured interviews

- Practitioner determines content and questions; should be used to form hypotheses that are best supported with other data
- Advantages: flexibility to explore relevant family, peer, and contextual factors and to attend to informant's needs and goals
- Limitations: potential for practitioner bias and judgment error; requires a high level of skill

Semistructured interviews

- Specifies content and sometimes questions
- Advantages: more consistent coverage of important content areas and reduced need for practitioner judgment
- Limitations: the need for practitioner skill and judgment

Structured interviews

- Specifies wording of questions and probes; some provide algorithms for determining diagnoses; focus on making categorical diagnoses
- Advantages: producing consistent data, specifying onset and duration of symptoms, and providing information on a wide range of symptoms and diagnoses

- Limitations: time involved in training and monitoring cross-interviewer agreement, questionable reliability with children under age 9, and limited information on family, peer, and contextual factors

Behavior rating scales

- Behavior is rated in terms of presence/absence or severity/frequency; provides quantitative index of informant's global impression of child's behavior
- Advantages: ability to cover a broad range of behaviors, easily quantifiable to allow for normative comparison, and easy and inexpensive to administer and score
- Limitations: data consists of global impressions and not situation-specific information, limited information on onset and duration of symptoms, modest agreement among different informants, and ratings are open to biased reporting

Broad behavior rating scales

- Survey a wide range of behaviors
- Advantages: ability to screen for behavior problems and comorbidity; generally have better established reliability, validity, and norms than narrow rating scales
- Limitations: specific scales lack the differentiation present on narrow checklists

Narrow behavior rating scales

- Focus on one dimension or diagnosis
- Advantages: greater specificity than broad rating scales; shorter length, which allows for repeated administration for monitoring progress
- Limitations: generally limited established reliability, validity, and norms

Direct observation

- Generally involves recording behavior as it occurs; uses trained and impartial observers; clearly defines rules and procedures; and uses behavioral categories that require minimal inference
- Advantages: allowance for greater objectivity; provides information on frequency, duration, and sometimes environmental factors; helpful when there are discrepancies among informants or concerns with informant reliability
- Limitations: often not sampling multiple behaviors or settings; failure to capture context and saliency of behaviors; behavior can change when observed; not helpful with infrequent or covert behaviors; can be time-consuming and costly

Projective methods

- Child completes an unstructured task for which there are no right or wrong answers
- Advantages: potential to provide information on motivation, desires, conflicts, and perceptions
- Limitations: generally poor standardization, reliability, validity, and norms; lack of objective scoring and interpretation; can be time-consuming and expensive

Tests of intelligence, academic ability, and neuropsychological functioning

- Measure multiple cognitive skills and knowledge of school subjects
- Advantages: high levels of reliability and validity; intelligence tests correlate positively with school success
- Limitations: scores are affected by multiple factors such as motivation, impulsivity, and variables that differ by culture; intelligence tests have limited value for guiding academic interventions

multiple settings is required (e.g., home, school, day care). Information from different settings more accurately defines the extent of ACP behavior, as well as aids in the identification of factors affecting behavior.

In addition to multiple informants, it is recommended that the assessment use multiple instruments or methods. If only one method is utilized, the result is likely to be an inaccurate or incomplete assessment. For example, broad behavior checklists provide useful information on a wide range of behaviors, but limited information on family, peer, and contextual issues and on risk/protective factors. They provide limited information regarding the onset, duration, and intensity of behaviors. Also, the accuracy of ratings is affected by numerous factors. As a result, other methods, such as interviews, narrow checklists, and direct observation, are needed to obtain an accurate and complete impression of a child's functioning.

Psychometric Qualities

There are many unstandardized instruments and methods with unknown reliability and validity that are used for assessing children (Mash & Terdal, 1997). Whether a measure will provide consistent data that assesses the construct it claims to measure should be a major factor in selecting an instrument or method and interpreting its data.

All attempts to measure a behavior or construct are susceptible to error or inaccurate measurement. Measurement error refers to any variation in a score from the "true" score. Errors can be introduced by factors related to the individual, the environment, the behavior/construct being tested, or the test itself. One strategy for reducing measurement error is standardization. Standardization refers to a uniform set of procedures for administrating and scoring a particular test. Without standardization, variations in administration and scoring can seriously reduce a test's reliability and validity.

Reliability refers to the consistency of the data generated. There are a number of different types of reliability to consider when evaluating a test. These include test–retest reliability (i.e., how similar scores are from two different administrations of a test), alternate-from reliability (i.e., how well scores from two different forms of a test correlate with each other), internal consistency (i.e., the homogeneity of the behavioral domain sampled), and interrater reliability (i.e., correlation of scores obtained by two different scorers scoring the same data).

Validity refers to how well a test measures what it claims to measure. Two important types of validity are concurrent/predictive validity and construct validity. Concurrent/predictive validity refers to how well a test predicts performance on other activities. It relates to the practical utility of the test and is measured by correlations. Construct validity utilizes all other types of validity and refers to how well a test measures a theoretical construct or trait. It generally requires the gradual accumulation of data from different sources. Construct validity requires that a test have both convergent and discriminant validity. Convergent validity indicates that a test correlates positively with tests measuring similar concepts and discriminant validity indicates it correlates poorly with tests measuring different concepts.

How to interpret reliability and validity scores varies by the behavior/construct being measured and the purpose for using the test. Some behaviors are very much influenced by contextual factors and variations are expected in different situations and over time. For example, children commonly have more difficulty maintaining attention in school settings than in home settings. This is in part a result of different task demands in the different settings. A low correlation between parent and teacher ratings of attention (interrater reliability) may reflect an accurate measure of the behavior in the different settings rather than errors in measurement due to different raters. The same issue can be present with concurrent and predictive validity. A low correlation between two forms of assessment (e.g., a behavior rating scale and direct observation) may indicate an invalid score/measure or the expected variation in the behavior over different settings and times. It must be remembered that tests are not valid in general; they are valid only for specific purposes and only under specific circumstances.

Classification

Behavioral disorders are commonly classified in categorical or dimensional terms. Categorical classification results in behaviors or functioning being placed in a distinct group or category: a determination is made concerning the presence or absence of a label or diagnosis. Dimensional classification results in behaviors or functioning being placed on a continuum of a characteristic or dimension: a determination is made concerning the degree to which a characteristic applies to a child. Both categorical and dimensional classifications are useful when describing children with ACP. They provide different types of information and each has limitations that are important to understand. As suggested by Hinshaw and Zupan (1997), the most productive approach may be to utilize both systems of classification when assessing children with ACP.

With categorical classification, it is assumed that there is a qualitative difference between those who exceed a certain threshold of severity or number of symptoms and those who do not. The diagnostic categories in DSM–IV, such as ODD, CD, and ADHD, are categorical classifications. Problems associated with this system include the somewhat arbitrary nature of the number of symptoms and how long the symptoms need to be present to qualify for a diagnosis, the suggested discontinuity in functioning once a certain number of symptoms is reached, the large amount of variation within diagnostic categories, and the overlap among the disruptive behavior disorders. This approach to classification also fails to take into account contextual and systemic factors, and includes age and gender in only a limited way.

Behavior rating scales produce dimensional classifications. Ratings of the child's behavior are compared to a normative sample and this determines where on the continuum a score falls. Rather than being in or out of a category, a score is higher or lower on the continuum. For example, on the CBCL, one child's score may place him at the 90th percentile on the Aggressive Behavior Scale while another child's score may place him at the 60th percentile. This approach can easily take age and gender into account with separate norms. Problems with this system include potential bias based on the normative sample, the failure to take contextual and systemic factors into account, the large amount of variation within children at similar levels on the dimensions, and the arbitrary nature of cutoffs for "clinical significance." Table 3.3 summarizes factors to consider in selecting methods for assessing children with ACP.

TABLE 3.3. Factors to Consider in Selecting Assessment Instruments and Methods

Multiple sources and methods

- Allows for increased accuracy of information
- Provides information from different settings
- Allows for the collection of a wide range of information related to ACP behavior and individual, family, peer, and contextual issues

Psychometric qualities

- Standardization refers to uniform procedures for administration and scoring
- Reliability refers to the consistency of the data generated
- Validity refers to how well a test assesses what it is intended to measure
- The selection of reliable and valid instruments and methods increases the accuracy of the information obtained

Classification

- Categorical classification results in behavior or functioning being placed in a distinct group or category
- Dimensional classification results in behavior or functioning being placed on a continuum of a characteristic or dimension
- The use of both approaches is recommended for children with ACP

Summary

This section presented information on the different sources of information for assessments of children with ACP (summarized in Table 3.1), different assessment instruments and methods (summarized in Table 3.2), and factors to consider in selecting methods of assessment (summarized in Table 3.3). Due to the limitations of the various sources and methods, and the variability of behavior over different settings and contexts, the assessment of children with ACP should include multiple methods and multiple sources of information. Information on the strengths and weaknesses of different sources and methods is necessary for all practitioners working with children with ACP to allow for accurate and productive use of assessment data.

ASSESSMENT AND CULTURE

To use assessment instruments and methods in an effective manner, the practitioner must consider the role of culture. The cultures of the child, of the practitioner, and of the informant can effect the assessment process and interpretation of the data. As a result, practitioners need to be aware of the potential influence of culture and take steps to manage and interpret it appropriately.

Cultural Group Differences on Behavior Rating Scales and Tests of Intelligence

The available evidence suggests that teachers tend to rate African Americans higher on behaviors related to ADHD and conduct problems (Epstein, March, Conners, & Jackson, 1998; Reid, 1995; Reid et al., 1998, 2000). Puerto Rican teachers and parents report significantly more behavior problems than do U.S. teachers and parents (Achenbach et al., 1990). Group differences on tests of intellectual ability are well established (Neisser et al., 1996). Asian Americans as a group score similar to white Americans, Hispanic Americans and Native Americans score somewhat below white Americans, and African Americans score one standard deviation below white Americans. Both Native Americans and Hispanic Americans score lower on the verbal portions than on the nonverbal portions of ability tests.

There is little agreement about why these cultural group differences exist. It is not known whether they accurately reflect real behavioral and skill differences among the groups or whether they result from biased measurement. Factors related to the child and his or her culture, the test, or the informant could contribute to group differences. Child factors include variables differentially distributed among cultural groups—for example, prenatal risk factors, psychosocial stressors, access to or denial of academic opportunity, and economic advantages or disadvantages (Reid et al., 1998). Different cultural groups may place more or less value on doing well on tests, speed of performance, and the constructs measured by the tests. Other factors include the cultural similarity or difference between the practitioner and the child, as well as the child's own expectations concerning how well he or she will perform.

Characteristics of the tests or behavior rating scales that could effect group differences include the constructs measured, the content of the test or rating scale, and the quality of the norms. For example, even if a particular cultural group is included in the normative sample, its low numbers in the sample may limit its impact on the overall norms (Reid, 1995).

Rater bias is another potential source of error on behavior rating scales (Hinshaw & Park, 1999; Reid, 1995). The culture of the child being rated, the culture of the rater, and the similarity or difference in culture between the child and the rater may all affect behavioral ratings.

Approaches for Managing Cultural Effects

The use of separate norms for different cultural groups is one option for addressing these concerns (Lindsey, 1998; Nicolosi & Stavrou, 2000; Reid et al., 2000). With separate norms, individuals can be accurately compared to others within their own cultural group. One difficulty with group-specific norms, however, is determining the appropriate normative group. For example, there could be one Hispanic normative group or different norms for Hispanics from Mexico, from Puerto Rico, from Central and South America, and from Cuba. Also, it may be less helpful to use separate norms if the purpose of the evaluation is to determine or predict functioning in the majority culture. A productive approach is to use both group-specific and general population norm scores so that the child's functioning can be assessed in relation to both populations.

In many cases, the discussion of what norms are most appropriate is purely academic: separate culture-specific norms are not available. Regardless of the norms used, providers need to use informed judgment in interpreting normative results. The information should be supplemented with data from other assessment methods and sources of information. When assessing nonmajority children with behavior rating scales, the practitioner should give special consideration to the use of direct observation to supplement the results. With tests of intellectual ability, other sources of information should be used to evaluate the accuracy of the scores.

Other proposed solutions for responding to group differences on tests of intelligence include the use of culture-specific tests (Dana, 1993, 1998) or the use of culture-free tests (Anastasi & Urbina, 1997). Culture-specific tests are designed, validated, and normed within a culture and are only used within that culture. Only within-culture comparisons are made. This approach reduces the concern with the cross-cultural validity and relevance of constructs and works well if the criteria to be predicted remain within the culture. Culture-free, or culture-fair, tests utilize content that is common to multiple cultures in an attempt to minimize group differences. This is often accomplished by limiting the verbal and language demands of the test, as in the Leiter International Performance Scale—Revised (Roid & Miller, 1997) and the Comprehensive Test of Nonverbal Intelligence (Hammill, Pearson, & Wiederholt, 1996). Culture-free tests appear to reduce the impact of culture, but have not been successful at eliminating cultural group differences (Anastasi & Urbina, 1997; Satttler, 1992).

Currently, no agreement exists on the optimal way to use tests with children of different cultural backgrounds (Esters, Ittenbach, & Han, 1997). Anastasi and Urbina (1997) noted that multicultural assessment is moving away from designing special tests to attending more to the role of the assessor. The assessor can introduce bias in his or her choice of tests, by the amount and type of information he or she elicits from the child and adult informant, and through his or her interpretation of the data. Anastasi and Urbina (1997) suggested that the assessor do the following:

1. Obtain information about the examinee's cultural background.
2. Choose tests that are best suited for the purpose for which they will be used.
3. Administer the test effectively for the particular individual.
4. Interpret the results in light of both the individual's background and the context for which the individual is being assessed.

They point out that gathering information about an individual's history to assist in the interpretation and proper use of test scores is a desirable practice when assessing anyone, regardless of cultural differences.

Important factors in understanding a child's cultural background include understanding the child and parent's worldview and group identity. Dana (1993) asserted that practitioners should be aware and accepting of underlying differences in cultural values and the organization of reality that are responsible for some of the observed differences among cultural and racial groups. The practitioner needs to take into account that his or her worldview may differ from that of the individual being assessed and may result in a different view of personal control and responsibility, what constitutes problematic behavior, and appropriate methods of intervention. Dana viewed it as imperative for the practitioner who wishes to provide culturally competent services to explore an individual's group identity. This allows the practitioner to provide the individual with a meaningful context for the assessment and to conduct the assessment and treatment planning in a productive manner.

Summary

Table 3.4 summarizes potential cultural effects on the assessment of children with ACP and approaches for managing them. Awareness and management of cultural effects are important for generating effective treatment recommendations.

ASSESSING BEHAVIOR, FUNCTIONING, AND RISK/PROTECTIVE FACTORS

Assessments of children with ACP are conducted in many settings, including mental health clinics, schools, and community programs. The purpose of the assessments vary, but may include generation of a diagnosis, identification of areas of need, determination of eligibility for a program, the ruling out of significant problems, or development of a comprehensive intervention. The focus and depth of assessments differ significantly: some consist of a brief interview, while others are long and involved. For example, the assessment for a mentoring or after-school program is likely to be relatively brief. It may attempt to identify the child's interests and concerns to help in program selection. It may also rule out significant problems that the program would not have the resources to manage. In contrast, the assessment for a child referred for a day treatment or for a therapeutic foster care program will be much more comprehensive. It may involve detailed descriptions of behaviors and functioning; identification of individual, family, peer, and contextual risk and protective factors; the determination of a diagnosis, and the design of a comprehensive program of interventions targeting multiple behaviors and risk factors.

TABLE 3.4. Assessment and Culture

Cultural group differences on behavior rating scales and test of intelligence

- African Americans as a group are rated higher on measures of ADHD and conduct problems.
- Mean scores on tests of intelligence for African Americans are one standard deviation lower than for white Americans, with mean scores for Native Americans and Hispanic Americans being between these two groups.

Approaches for managing cultural effects

- Use of both culture-specific and general population norms allows for assessment in relation to both populations.
- Normative data should be supplemented with information from other assessment methods.
- Impact of culture should be minimized by considering the child's cultural background and group identity in test selection, administration, and interpretation.

Clinical assessments often result in determination of a diagnosis. This involves establishing the existence of a sufficient number of symptoms and level of impairment or distress. Some diagnoses also require information on the duration of the symptoms, age at which the symptoms began, the ability to rule out other factors, and the presence of symptoms in multiple settings. Due to the heterogeneity of children within diagnostic categories, their failure to incorporate contextual factors, and the multiple pathways hypothesized for the development of ACP behaviors, diagnostic information is generally not sufficient for intervention planning. Level of functioning and risk/protective factors in the child, family, peer, and contextual domains (see Chapter 2) need to be specified to effectively design interventions.

A focus on defining problem behavior, functioning in multiple areas, and risk/protective factors is appropriate for all assessments of children with ACP. The following authors have written on assessing children with ACP; their works have generated the information and practices discussed in this section: (1) Frick's (1998) presentation on assessment of children with conduct disorders and antisocial behavior; (2) Hinshaw and Zupan's (1997) description of the assessment of antisocial behavior in children and adolescents; (3) Huberty and Eaken's (1994) discussion of the assessment of anger and hostility in children and adolescents; (4) Frauenglass and Routh's (1999) presentation on assessment of disruptive behavior disorders; (5) Kamphaus and Frick's (1996) procedures for assessment of child and adolescent personality and behavior; (6) McMahon and Estes's (1997) discussion of the assessment of conduct problems; and (7) Mash and Terdal's (1997) behavioral-systemic approach to the assessment of child and family disturbance. We begin this section by presenting content areas that are addressed in assessments of children with ACP, along with the instruments and methods used. Following this we describe procedures for combining information from different methods and sources, determining level of impairment, organizing risk information, and planning interventions.

Defining Problem Behavior

Detailed information on the problem behaviors is needed to establish the existence of ACP, make the diagnosis, identify targets for intervention, and begin to identify factors associated with the problem behavior. The specific information obtained on the problem behavior is contained in Table 3.5.

The best sources of information on externalizing behaviors are interviews (structured, semistructured, or unstructured) and behavior rating scales (broad and narrow) completed by parents and teachers. Narrow rating scales for identifying ACP behaviors include the Eyberg Child Behavior Inventory and the Sutter–Eyberg Student Behavior Inventory (Eyberg, 1992). The Home Situation Questionnaire and the School Situation Questionnaire (Barkley & Edelbrock, 1987) are used to identify problem situations and the severity of the problem. There are a number of narrow rating scales for identifying subtypes of ACP. These include the Psychopathy Screening Device (Frick & Hare, in press, described in Frick, 1998a; Fisher & Blair, 1998), teacher-rating forms to assess reactive and proactive aggression (Brown, Atkins, Osborne, & Milnamow, 1996; Dodge & Coie, 1987), and teacher rating forms to assess relational and overt aggression (Crick, 1996; Crick et al., 1997).

School, medical, and court records can also be useful sources of information. They not only provide historical and current information on behavior, but also help practitioners to assess the accuracy of information provided by informants. If practical, direct observation procedures can be used. Direct observation is especially helpful if adults are not able to provide sufficient information, there are discrepancies among informants that are not explained by contextual factors, or there are reasons to question the accuracy of reports. If behavior problems occur outside of the home and school (e.g., at day care, a relative's home, an after-school program), information is needed from adults in these settings.

Defining Child Risk/Protective Factors

This category of risk/protective factors includes variables such as comorbid disorders, biological factors, and individual skills. As described in Chapter 1, it is common for children with ACP to have other disorders that impact the ACP and responses to interventions. These comorbid conditions include

TABLE 3.5. Information Obtained on Problem Behaviors

1. Type of behavior
2. Frequency of the behavior
3. Intensity of the behavior
4. Age of onset
5. Course of the behavior (e.g., intermittent, chronic)
6. Changes in the frequency and intensity of the behavior over time (e.g., the behavior is gradually worsening or has remained constant)
7. Setting in which the behavior typically occurs
8. With whom the behavior typically occurs
9. Antecedents of the behavior
10. Consequences of the behavior
11. Impact of the behavior on the child's functioning
12. Previous attempts to manage/change the behavior

ADHD, depression (major depression, bipolar disorder, and dysthymia), anxiety, learning disabilities/low academic ability/low academic achievement, adjustment reactions, and reactions to trauma (posttraumatic stress disorder). Though far less common with children than with adolescents, substance abuse also needs to be ruled out. Child characteristics can also serve as protective factors. A sense of self-efficacy, prosocial values, and adequate levels of intellectual and academic skills serve a protective function for children. Parent, child, and teacher interviews and rating scales are helpful in identifying possible child risk and protective factors. If the data from these methods suggest problems, further information should be obtained via narrow rating scales, projective methods, and tests of intellectual skills.

If problems with hyperactivity, attention, and impulsivity are present, assessment of ADHD should be conducted. Assuming parents and teachers have already completed broad rating scales, they should complete narrow rating scales focused specifically on ADHD symptoms, such as the ADHD Rating Scale–IV (DuPaul et al., 1997, 1998). Other possible explanations for the attention problems—for example, anxiety, boredom, and learning problems—need to be ruled out. Computerized continuous performance tests may be helpful if the information available is inconsistent or there are reasons to question its accuracy. High false-negative rates (children with ADHD scoring in the normal range) need to be kept in mind when using these tests (Gordon & Barkley, 1998).

Further exploration of learning problems and the protective factor of strong intellectual skills involve assessment of intellectual ability and academic achievement. This information is sometimes supplemented with neuropsychological testing. School information from interviews, rating scales, and records can be helpful in accurately interpreting results from the ability and achievement testing. Schools will often be able to do this testing themselves. This information is helpful not only for diagnostic purposes, but also for understanding other symptoms (e.g., a processing deficit that interferes with understanding directions may affect compliance with directions) and for intervention planning.

When there is evidence of depression, anxiety, trauma, or acute stress, further assessment may be needed to better define the problem and recommend interventions. Parent and teacher rating scales and interviews are useful for identifying symptoms such as social withdrawal, changes in eating and sleeping patterns, and increased inattentiveness. Such information needs to be supplemented with the child's own report of subjective experiences. Broad and narrow rating scales, interviews, and possibly projective methods can be used. Useful rating scales include the Revised Children's Manifest Anxiety Scale (Reynolds & Richmond, 1985), the Children's Depression Inventory (Kovacs, 1992), and the Reynolds Child Depression Scale (Reynolds, 1989).

In addition to comorbid disorders, biological and historical variables also function as child risk factors. Obtaining information related to these variables assists in identifying biological factors influencing behavior, generating hypotheses concerning comorbidity, supporting diagnoses, and providing the historical context for current problem. Information should be obtained on the pregnancy and birth, especially information about prenatal exposure to alcohol and drugs, premature birth, and birth complications; early temperament; developmental milestones; medical history, including medications, history of elevated lead levels, hospitalizations, and significant illnesses and injuries; and family psychiatric history. This information is often obtained via questionnaires, unstructured or semistructured interviews with parents, and the review of medical records. Medical evaluations should be considered to further assess biological factors that may be affecting the ACP behaviors.

Defining Parent and Family Risk/Protective Factors

Multiple factors related to parent and family functioning effect the onset, maintenance, and expression of ACP behaviors. Parent factors related to ACP behaviors include depression, low levels of social support, antisocial behavior, substance abuse, stress, and negative cognitions. Parent–child interactions that are of concern include inconsistent and harsh discipline, poor monitoring and supervision, low levels of warmth/nurturance, negative verbalizations toward the child, and physical abuse. Family risk factors include sibling relationship problems, marital conflicts and violence, divorce/separation, and family instability (e.g., multiple moves, changes in primary caretakers, and homelessness). Protective factors include a close relationship with a parent, supportive and authoritative parenting, and functional family relationships.

Information on parenting and family factors is obtained through parent and child interviews and narrow rating scales. There are a number of measures to assess parenting practices, including the Parenting Scale (Arnold, O'Leary, Wolff, & Acker, 1993) and the Alabama Parenting Questionnaire (Shelton, Frick, & Wootton, 1996). The Parenting Stress Index (Abidin, 1995) assesses both child and parent factors related to parenting stress. Issues involved in the selection and use of family-functioning rating scales were reviewed by Tutty (1995). Frequently utilized measures include the Family Environment Scale (Moos & Moos, 1983) and the Family Adaptability and Cohesion Evaluation Scale–III (Olson & Killorin, 1985). Marital conflict can be assessed with the O'Leary–Porter Scale (Porter & O'Leary, 1980). These measures can be used to identify both risk and protective factors. In addition to narrow rating scales, the practitioner's use of informal observation of parenting practices and parent–child interactions during the assessment process is helpful. If practical, more formal direct observation procedures can also be used.

Defining Social and Peer Risk/Protective Factors

Children with ACP commonly have difficulties with peer relations. Factors to assess include rejection by peers, affiliation with aggressive children, limited communication skills, poor emotional regulation, and social information distortions and deficiencies. Protective factors include association with prosocial peers and adaptive social interaction skills. Information on social functioning is obtained through parent, child, and teacher unstructured interviews; rating scales; sociometric ratings; and direct observation with peers. Demaray and colleagues (1995) reviewed and evaluated six published social skills rating scales. Recommended measures included the Social Skills Rating System (Gresham & Elliott, 1990), which includes forms for teachers, parents, and children; and the Walker–McConnell Scale of Social Competence and School Adjustment (Walker & McConnell, 1988), a rating scale completed by teachers.

Defining Contextual Risk/Protective Factors

Contextual factors include school, neighborhood, and societywide influences on ACP behavior. Relevant school variables include child–teacher relationships, parental attitude toward and degree of involvement with school, existence of effective school programming to address child problems, and overall school climate (e.g., an effective school program acts as a protective factor). Information on school factors can be obtained from teacher rating scales, interviews, and school records. The teacher interview focuses not only on school risk and protective factors, but also on the child's behavior, the child's social functioning, and parent's involvement. In Table 3.6 we provide a more detailed description of the information obtained from the teacher.

Relevant neighborhood factors include poverty, the amount of violence in the neighborhood, the child's and parent's sense of safety, the presence of positive adult and child role models, and the availability of appropriate recreational opportunities. Societywide influences include exposure to violence in the media and games, and exposure to guns and weapons. This information is commonly obtained from the parent and child in unstructured interviews.

Defining Level of Impairment

Obtaining information concerning the type and level of functional impairment is important for determining diagnoses and interventions. Functional impairment is difficult to define and measure (Bird, 1999), but in general refers to the degree to which a child's ability to perform as expected is compromised. Determining a child's level of functional impairment is compli-

TABLE 3.6. Information Obtained from a Teacher Interview

1. Clarification of the teacher's main concerns
2. Identification of problem behaviors and their contexts (setting, frequency, duration, antecedents, and consequences)
3. Attendance
4. Academic ability
5. Factors affecting academic performance
6. Social skills and social acceptance
7. Teacher's relationship with the child
8. School programming for the child and its effectiveness
9. Teacher's perception of the child's needs
10. Parents' involvement in school
11. Teacher's willingness to implement interventions

cated by the fact that it will commonly differ from one domain to another (e.g., psychological, interpersonal, school, and family).

A number of options exist for determining level of impairment in children. Using DSM–IV, practitioners rate the level of impairment for children on the Global Assessment of Functioning Scale (American Psychiatric Association, 1994). This scale requires practitioners to consider psychological, social, and occupational (school) functioning to rate a child's overall functioning on a scale from 0 to 100. A similar measure, the Children's Global Assessment Scale (CGAS; Shaffer et al., 1983), is designed specifically for children. The Nonclinician Children's Global Assessment Scale is a modification of the CGAS designed to be completed by nonpractitioners (Bird & Gould, 1995). Other measures for determining level of impairment for children are discussed by Bird (1999).

Combining Data from Multiple Sources and Multiple Methods

Having obtained information from multiple informants and multiple settings, and having used multiple methods, the practitioner must integrate this information into a clear and productive case conceptualization. This is a challenging task involving a somewhat subjective process that is dependent on the skill and knowledge of the practitioner. It is also a process that can be influenced by the orientation and biases of the practitioner.

Integrating inconsistent information is problematic when trying to use classification systems that require a tabulation of the number of symptoms present (e.g., diagnoses). Simple approaches to combining data (e.g., count a behavior as present if any informant reports it) are equal to or better than complex approaches (e.g., employ different weighting for information from different informants)(Piacentini, Cohen, & Cohen, 1992). Kamphaus and Frick (1996) support a simple approach to combining data, but add two considerations. First, decisions on whether to count a symptom as present should take into account the risks of false positives (e.g., potential negative affects for a client who is mislabeled) and false negatives (e.g., a child who needs services is ineligible to receive them) in making diagnostic decisions. A second factor to be considered is the credibility of the informant and whether the informant could be expected to have good knowledge of the specific behavior. For example, adults are generally considered to report overt behavior problems more accurately than children.

Kamphaus and Frick (1996) proposed a five-step strategy for integrating information from a comprehensive assessment. The first step is to document all clinically significant findings. The second step involves identifying convergent findings across sources and methods. They recommended including findings that may be important, yet do not exceed the cutoff point for clinical significance. For example, suppose a child reported a high level of anxiety, a parent reported three symptoms of anxiety, and a teacher's rating resulted in a T-score of 64 on an anxiety scale. Only one informant's report results in "clinical significance," yet there is some convergence among the three informants.

The third step is to attempt to explain discrepancies. This chapter has highlighted many potential sources of discrepancies such as the effects of different settings on behaviors and the many factors that affect ratings.

In the fourth step the practitioner develops a profile and a hierarchy of strengths and weaknesses. The strengths and weaknesses should be evident from the previous steps, but prioritizing the concerns is more difficult. To better focus interventions, the practitioner must try to determine which problem areas are primary and which are secondary. For example, if a child becomes depressed following school and home conflicts resulting from noncompliance, the noncompliance is primary and the depression is secondary. Targeting the noncompliance with an intervention may also reduce the depression. Kamphaus and Frick (1996) offered three factors to consider when prioritizing concerns: the degree of impairment associated with different problems, the temporal sequencing of problems, and family history (e.g., a family history of depression).

The fifth step consists of determining what information to place in the report. They recommended that information be included in the report only if it contributes to the understanding of the case formulation or the treatment recommendations.

Developing a Risk Profile

Much emphasis has been placed on the identification of risk factors and their use to inform intervention efforts. The process of compiling and using information on risk factors is generally guided by clinical judgment.

Attempts have been made recently to develop more systematic approaches to the organization and utilization of risk information. Frameworks have been developed for assessing risk for aggression (Augimeri, Webster, Koegl, & Levene, 1998) and dropping out of treatment (Kazdin, 1996b; Kazdin, Mazurick, & Bass, 1993).

The Early Assessment Risk List for Boys (EARL–20B; Augimeri et al., 1998) is used to organize the information obtained in an assessment to specify the aggression potential for boys under age 12. The EARL–20B consists of 20 factors associated with aggressive behavior that are rated 0, 1, or 2 depending on the degree to which they are present. The items are organized into three categories: family (e.g., stressors, parenting style), child (e.g., impulsivity, school functioning), and amenability to treatment (family responsibility and child "treatability"). Aggression and violence are broadly defined by the authors and include such behaviors as lying, stealing, and noncompliance. The practitioner completes the EARL–20B based on information obtained from an assessment.

Potentially, the EARL–20B can help to organize risk factors and guide providers in planning interventions. For example, if the majority of risk factors are in the family area, the intervention may focus on parent training. The EARL–20B may also be helpful in determining the intensity of the intervention needed. Higher summary scores will likely indicate the need for more intensive interventions. While theoretically appealing, the treatment utility of the EARL–20B will require empirical verification. In addition, the EARL–20B is still in the development stage, with limited normative data available.

A similar approach to assessing risk was utilized by Kazdin and colleagues (1993). They developed scales for each of 10 variables associated with conduct problems and poor prognoses (e.g., family economic disadvantage, parent psychopathology, and child contact with antisocial peers). Scores on each scale were determined by multiple measures. For example, the score on the child antisocial scale was calculated from the number of conduct disorder symptoms reported in a structured parent interview, the range and severity of symptoms reported by parents on the Interview for Antisocial Behavior (Kazdin & Esveldt-Dawson, 1986), the history of antisocial behavior reported by the parents on the Risk Factor Interview, and the severity of self-reported antisocial behavior determined by the Self-Report Delinquency Checklist (Elliott, Dunford, & Huizinga, 1987).

Rather than using complex algorithms to summarize risk factors, Kazdin (1996) recommended use of a checklist that rates each risk factor as present or absent. Children and families with multiple risk factors are likely to drop out of interventions (Kazdin, 1996). Early identification of those children and their families allows the practitioner to intervene to promote retention (see Chapter 12 for strategies to retain families in interventions). It also promotes an economical use of resources, as services to promote retention can be focused on those most likely to need assistance.

While currently not available, protection profiles could also prove to be useful for treatment planning. Protective factors identify resources that are available to families that can be used to promote positive change. The development of a systematic procedure for organizing protective factors and relating them to specific interventions would be helpful.

Selecting/Designing an Intervention

The utility of most assessments is to be found in their ability to recommend effective interventions. As with risk factors, the process of moving from assessment results to intervention planning is generally guided by clinical judgment. This complex process is influenced by such factors as the nature of the presenting concern, the level of impairment, the functions the problems serve for the child and family, the type and severity of skill deficits and risk factors, the presence of skills and protective factors, and the level of motivation for change. Often there is a need to prioritize interventions, differentiate short-term from long-term goals, and consider the availability of services.

A simple framework for determining interventions involves categorizing risk/protective factors and interventions. Categories of interventions are then matched to categories of risk and protective factors (see Table 2.4 in Chapter 2). Chapters 4 through 10 identify risk and protective factors targeted by the interventions described. While admittedly simplistic, this approach can serve as a starting point for selecting interventions. Information related to the problem behavior and its function can be used to further refine the selection process.

The four categories of risk and protective factors evaluated in the assessment are child, parent/family, social/peer, and contextual. If the assessment identifies risk factors in the parent/family domain, they can be targeted with parent and family skills training (see Chapter 5). Risk factors in the social/peer domain can be targeted with social competence training (see Chapter 4). Interventions can also attempt to enhance or create protective factors. If a child has prosocial friends, efforts can be made to provide greater opportunities for involvement with these friends. Positive bonds with prosocial school and community institutions can be promoted through involvement in mentoring or after-school programs (see Chapter 10).

Factors such as when, where, and with whom problem behaviors occur can provide helpful information for selecting/designing interventions. For example, if problem behaviors occur more frequently when a child is tired, interventions may focus on factors related to increasing the amount of sleep for the child. This may involve the establishment of a consistent bedtime routine and behavior management training for the parent (see Chapter 5). If problems are associated with unstructured times at school, interventions can focus on these times (see Chapter 8).

Various strategies for functional behavioral assessment offer another approach for matching interventions to assessment results (Dunlap et al., 1993; DuPaul & Ervin, 1996; Maag & Reid, 1994). These assessments identify factors associated with the problem behavior and determine the function or purpose the problem behavior serves for the child (see the section below on functional behavioral assessment). Some of the functions identified in school settings include obtaining adult attention, obtaining peer attention, and avoiding tasks. The same behavior can serve different functions. For example, a child may disturb other children during class to avoid work, to attract the teacher's attention, or to obtain peer attention. If the function is to avoid work, interventions could target factors related to academic engagement (see Chapter 7). If the behavior is intended to attract teacher attention, the teacher can be advised to ignore the inappropriate behavior and to give attention and praise to appropriate behavior, or the child could be taught more appropriate ways to obtain the teacher's attention. If the goal of the behavior is to elicit attention from peers, the classroom could be rewarded for ignoring the child's inappropriate behaviors, the child could earn peer contact with appropriate behavior, or the child could be taught more appropriate behaviors for gaining peer attention.

Procedures for tailoring treatment to assessment results are not well defined and are generally dependent on the skills of the practitioner (Abikoff, 2001). In discussing treatment for ADHD, Abikoff acknowledged the potential usefulness of empirically based algorithms for matching treatment to assessed needs, yet noted their value has not been empirically demonstrated. He pointed out that effective matching requires a model that accurately links needs (e.g., social skills deficits) with the outcome variables (e.g., aggression), valid assessment procedures for measuring needs, and interventions that have demonstrated efficacy in targeting the needs.

Summary

Table 3.7 summarizes information on assessment of behavior, functioning, and risk/protective factors. Assessments should go beyond mere descriptions of problems to include recommendations for effective interventions. To do this, information on behavioral concerns and risk/protective factors in the child, family, social, and contextual domains is collected and organized in a manner that directs the selection of interventions.

FUNCTIONAL BEHAVIORAL ASSESSMENTS IN SCHOOLS

Schools are increasingly using functional behavioral assessment (FBA) to evaluate children with ACP and to inform their interventions. This increase

TABLE 3.7. Assessing Behavior, Functioning, and Risk/Protective Factors

Collect data

- Define problem behaviors.
- Define child risk/protective factors.
- Define parent and family risk/protective factors.
- Define social and peer risk/protective factors.
- Define contextual risk/protective factors.

Combine data from multiple sources and methods

- Document all clinically significant findings.
- Look for convergent findings across sources and methods.
- Try to explain discrepancies.
- Develop a profile and a hierarchy of strengths and weaknesses.
- Determine critical information to place in the report.

Develop a risk profile

- Identify categories in which risks are present.
- Determine overall level of risk.
- Use this information to inform intervention planning.

Select/design the intervention

- Match categories of interventions to the categories of risks present.
- Utilize information on the behaviors and functions of the behaviors to select and focus the intervention.

has been spurred, in part, by the 1997 amendments to the Individuals with Disabilities Act that mandate FBAs in certain situations. FBA refers to a range of processes used to identify factors that control target behaviors. These assessments determine when, where, and why problem behaviors occur. They should not be equated with functional analysis, which is a specific form of FBA. Functional analysis involves the systematic manipulation of variables thought to effect a target behavior in order to establish a causal relationship between the variable and the target behavior.

Until recently, FBA was used and evaluated primarily with children with developmental disabilities (Heckaman, Conroy, Fox, & Chait, 2000). It is now commonly used in schools with children exhibiting ACP. Interventions based on FBA have been found effective in reducing problem behaviors and increasing desirable behaviors for students with or at risk for developing emotional and behavioral disorders (Dunlap, White, Vera, Wilson, & Panacek, 1996; Heckaman et al., 2000) and students with ADHD (DuPaul & Ervin, 1996; Ervin et al., 2000). What has not been demonstrated is the cost-effectiveness of FBA in school settings, that is, whether it is more effective than procedures that require less time and fewer resources (Fox, Conroy, & Heckaman, 1998; Nelson, Roberts, Mathur, & Rutherford, 1999). Fox and colleagues (1998) concluded that the reliability and validity of FBA instruments and techniques for students labeled emotional/ behavioral disordered (EBD) have not been established.

When to Use Functional Behavioral Assessments

Due to the time and expense involved in conducting FBAs, guidelines are needed for when they should be used. Interventions for simple behavior problems can be designed without the time and expense involved in conducting an FBA. Sugai, Horner, and Sprague (1999) recommended that when problem behaviors do not respond to interventions, or when the behaviors are severe, violent, or intense, that a functional assessment be utilized. O'Neill and colleagues (1997) recommended that the intensity of the assessment match the complexity of the problem behavior. For example, if an interview is sufficient to identify controlling factors and to design an effective intervention, then there is no need to conduct a more involved assessment. However, guidelines indicating when FBAs are productive and cost-effective have not been empirically established.

Procedures for Functional Behavioral Assessments

The main purpose of an FBA is to improve the effectiveness of behavioral interventions (Sugai et al., 1999). The practitioner, rather than implementing a generic intervention, uses functional assessment to design an intervention to match the qualities of the student and the environment in which the problem behavior occurs. O'Neill and colleagues (1997) described five primary outcomes of a functional assessment:

1. A clear description of the problem behavior.
2. Identification of the events, times, and situations that predict when the problem behavior will occur.
3. Identification of the consequences that maintain the problem behavior, that is, the function the behavior serves.
4. Development of summary statements or hypotheses that describe specific behaviors, specific situations, and specific outcomes that maintain the behavior in the situation.
5. Collection of direct observation data that support the summary statements.

Much variety exists among the procedures used to implement FBAs. There have been some efforts to standardize procedures, with that of O'Neill and colleagues (1997) being one of the better known (Fox et al., 1998). As a result, O'Neill and colleagues' procedures for conducting functional behavioral assessments will be described in some detail.

Three methods are used to collect information: informant methods (interviews, questionnaires, rating scales), direct observation, and functional analysis manipulations. The first step is to talk to the student and those who know the student and the problem behavior. To assist with this procedure, O'Neill and colleagues developed semistructured interviews for school staff and parents (the Functional Assessment Interview) and students (the Student-Directed Functional Assessment Interview). The Functional Assessment Interview format can be used to interview school staff or school staff can complete the form on their own. Table 3.8 lists the content areas covered in this interview.

After the information is gathered, the final step in the interview is to develop summary statements for each major predictor and consequence. Summary statements integrate the information obtained and help in the development of behavior support plans. They describe the situation, the behavior, and the function the behavior serves. An example of a summary statement is: "When Andrea begins to have difficulty with a reading or math assignment, she will put her head down, refuse to respond, and close her books to try to avoid having to complete the assignment. The likelihood of this pattern increases if Andrea has received teacher reprimands earlier in the day" (O'Neill et al., 1997, p. 17).

The Student-Directed Functional Assessment Interview is a shorter interview that has the student define the problem behaviors, identify contexts

TABLE 3.8. Content of the Functional Assessment Interview for School Staff

1. Describe the behavior (specific description, frequency, duration, intensity, sequence).
2. Define potential ecological/setting events (medications, medical or physical conditions, sleeping and eating patterns, daily routine).
3. Define the immediate antecedents for occurrence and nonoccurrence of the behavior (time of day, setting, people involved, activity).
4. Identify the consequences or outcomes of the behavior that may maintain it.
5. Define the efficiency of the behavior (i.e., amount of effort required to obtain desired outcome).
6. Identify functional alternative behaviors the student already performs.
7. Identify the primary ways the student communicates with others (receptive and expressive language skills).
8. Identify things staff should do and should not do in working with this student.
9. Identify what is reinforcing for the student.
10. Specify the history of the problem behavior and efforts to correct it.
11. Develop summary statements for each major predictor and consequence.

Note. From O'Neill et al. (1997). Copyright 1997 by Thomson Learning. Adapted by permission.

where the problem occurs, and identify antecedents and consequences. Summary statements are developed and changes that would promote the desired behavior are identified. A Student Daily Schedule (see Figure 3.1) is used to help students identify when they exhibit the problem behavior and rate the severity of the problem behaviors.

The functional assessment process can end after the interviews if the practitioner has a high level of confidence in his or her summary statements. For complex problem behaviors the preliminary summary statements should be validated and clarified with direct observation. The Functional Assessment Observation (FAO) form was designed for this purpose. It is used across multiple settings and times for low- to moderate-frequency behaviors (less than 20 times a day). A time sampling procedure is used for high-frequency behaviors. Data should be collected until clear patterns emerge (typically a minimum of 2–5 days and a minimum of 15–20 occurrences of the behavior). The FAO form is used to record observations (see Figure 3.2). The form is organized around "problem behavior events" which begin with a problem behavior and end after 3 minutes without a problem behavior. The observer records the problem behavior, its predictor or antecedents, perceived functions of the behavior (what the student is trying to obtain or avoid), and the actual consequences. The behaviors, predictors, and functions listed on the form are determined by the previous interviews and common factors identified in the literature.

If the interviews and direct observation do not reveal consistent patterns, functional analysis manipulations can be conducted. Functional analysis tests hypotheses concerning controlling factors by systematically varying environmental events and observing the effect on the targeted behavior. For example, if it is hypothesized that the problem behavior is brought on by frustration with assignments being too difficult, assignments can be modified and the resulting behavior observed.

Once the problem behavior, situation, and function are understood, this information is used to design interventions. This is accomplished by first identifying a desired behavior to replace the problem behavior. Then antecedents, consequences, and skills are identified that will promote the desired behavior. The consequences take into account the function of the problem behavior. For example, if the function of the problem behavior was to obtain peer attention, consequences for the appropriate behavior would involve peer attention.

Summary

Table 3.9 summarizes functional behavioral assessments, a form of assessment that is increasingly being used with children manifesting ACP in schools. While requiring much time, effort, and skill, these assessments can produce useful information for designing effective interventions.

Please place an "X" in each column to show the times and classes where you have difficulty with the behaviors we talked about. If you have a lot of difficulty during a period, place an "X" on or near the 6. If you have a little difficulty during the class or hall time, place the "X" on or near the 1. We can practice on a couple together before we start.

	Before School	1st Period	Hall	2nd Period	Hall	3rd Period	Hall	4th Period	Lunch	5th Period	Hall	6th Period	Hall	7th Period	Hall	8th Period	After School
Subject, Teacher	none	Reading Hall	none	Math Jones	none	Science Elliot	none	P.E. Bendix	none	Social Studies Smith	none	Music Best	none	Study Hall Ogan	none	Special Matthew	none
Most Difficult 6				X													
5		X								X						X	
4								X	X								
3			X		X		X				X	X	X		X		
2						X								X			
Least Difficult 1	X																X

FIGURE 3.1. Student Daily Schedule. From O'Neill et al. (1997). Copyright 1997 by Thomson Learning. Reprinted by permission.

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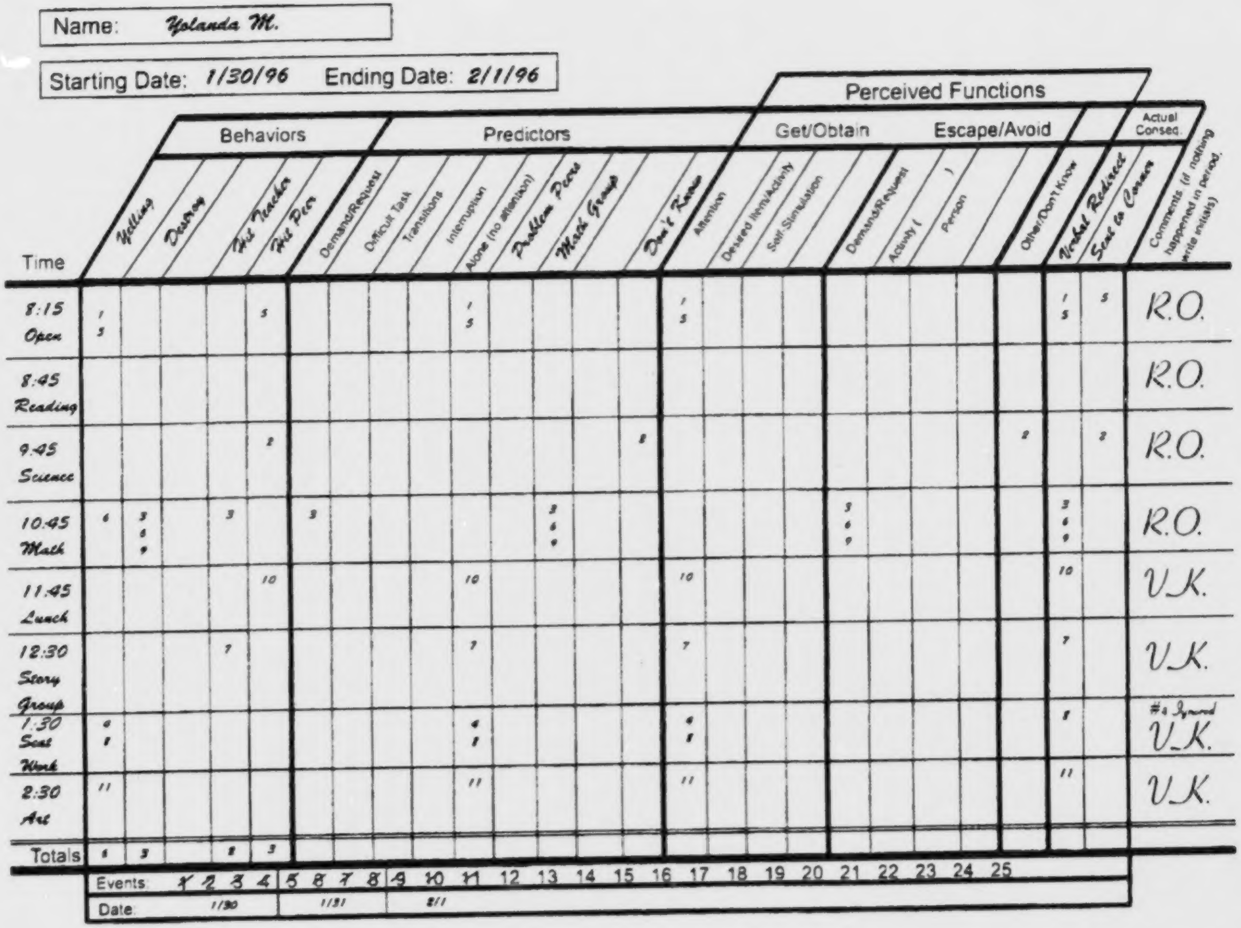

Name: Yolanda M.

Starting Date: 1/30/96 Ending Date: 2/1/96

															Perceived Functions											
	Behaviors					Predictors									Get/Obtain				Escape/Avoid					Actual Conseq.		
Time	Yelling	Destroy		Hit Teacher	Hit Peer	Demand/Request	Difficult Task	Transitions	Interruption	Alone (no attention)	Problem Peers	Math Group		Don't Know	Attention	Desired Item/Activity	Self-Stimulation		Demand/Request	Activity ( )	Person		Other/Don't Know	Verbal Redirect	Seat to Corner	Comments (if nothing happened in period, write initials)
8:15 Open	1 5				5					1 5					1 5									1 5	5	R.O.
8:45 Reading																										R.O.
9:45 Science					2									2									2		2	R.O.
10:45 Math	6	3 6 9		3		3						3 6 9							3 6 9					3 6 9		R.O.
11:45 Lunch					10					10					10									10		V.K.
12:30 Story Group				7						7					7									7		V.K.
1:30 Seat Work	4 8									4 8					4 8									8		#4 Ignored V.K.
2:30 Art	11									11					11									11		V.K.
Totals	6	3		2	3																					

Events: ~~1~~ ~~2~~ ~~3~~ ~~4~~ ~~5~~ ~~6~~ ~~7~~ ~~8~~ ~~9~~ ~~10~~ ~~11~~ 12 13 14 15 16 17 18 19 20 21 22 23 24 25

Date: 1/30 1/31 2/1

FIGURE 3.2. Functional Assessment Observation form. From O'Neill et al. (1997). Copyright 1997 by Thomson Learning. Reprinted by permission.

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SCREENING FOR AGGRESSION AND CONDUCT PROBLEMS

Screening refers to a universally applied assessment procedure used to identify children who are at risk or experiencing difficulties. Screening methods are briefer and more economical than comprehensive assessments. They are used to identify children for early intervention services. It is commonly recommended that intervention begin early in the development of ACP (Mulvey, Arthur, & Reppucci, 1993; Yoshikawa, 1994; Zigler, Taussig, & Black, 1992). For this to happen there must be effective methods of screening for ACP. Universal interventions preclude the need for screening. However, given limited resources, there is a need to focus more intense interventions on those who are experiencing problems or who are likely to experience problems in the future.

Screening Procedures

Screening procedures for ACP identify the presence of the risk factors discussed in Chapter 2. The manifestation of early forms of ACP is a commonly used factor. Other risk factors used include problems in social functioning and ineffective parenting practices. Information is obtained from teachers, parents, children, and independent observers.

A common approach used for screening for children with ACP is the "multiple-gating" approach. This involves a less expensive and less time-

TABLE 3.9. Functional Behavioral Assessments in Schools

When to use functional behavioral assessments

- Problem behaviors have not responded to interventions.
- Behaviors are severe or violent.
- There is a complex relationship among problem behaviors and controlling factors.

Procedures for functional behavioral assessment

- Information is collected from child, teachers, and parents with interviews, questionnaires, and rating scales.
- Information is integrated by describing the problem behavior, the situation, and the likely function the behavior serves.
- If uncertainty remains, direct observation is used to better understand the relationship among factors.
- If the relationship among the controlling factors is still unclear, functional analysis manipulations are utilized to clarify how variables are affecting the problem behavior.
- Based on the obtained information, interventions are designed to promote the desired behavior using antecedents, consequences, and skill-building.

consuming assessment procedure being applied to all the children in a group (e.g., all children referred to a clinic or all kindergartners in a school). Only those children identified as being at risk in the first "gate" go on to the next level of assessment.

Multiple-gating approaches used in research, clinical, and school settings have been described (August, Realmuto, Crosby, & MacDonald, 1995; Charlebois, Leblanc, Gagnon, & Larivee, 1994; Feil, Walker, Severson, & Ball, 2000; Lochman & Conduct Problems Prevention Research Group, 1995; Walker, Colvin, & Ramsey, 1995). The screening procedures generally involve two or three levels or gates. A simple two-gate procedure described by Walker and colleagues (1995) involves teachers nominating up to five children who consistently display antisocial behavior (behavioral examples are provided to teachers). Children identified using this first gate are rated by teachers on the Aggression Scale of the Achenbach Teacher Report Form. If a child's score is two or more standard deviations above the mean, the child is referred for services for antisocial behavior.

Lochman and the Conduct Problems Prevention Research Group (1995) described a three-gate procedure. The first stage involved teachers completing the Teacher Observation of Classroom Adaptation—Revised (Werthamer-Larsson, Kellam, & Wheeler, 1991). The second stage consisted of parents responding to 24 items on externalizing behavior selected from various checklists. For the third gate parents completed the Parenting Practices Screen, a questionnaire assessing parenting practices. The first two gates were found to be effective, but the parenting practices screen was not helpful for increasing the effectiveness of prediction.

Accuracy of Screening Procedures for Aggression and Conduct Problems

Accurate screening is an important factor in the success of targeted interventions, yet the screening of young children for ACP has not achieved high levels of accuracy (Bennett et al., 1999; Bennett, Lipman, Racine, & Offord, 1998). For example, the Lochman and Conduct Problems Prevention Research Group (1995) screening procedure identified only 50% of the children who eventually met their criteria for problem outcomes at the end of first grade. Prediction of future ACP is made difficult by the high base rate for behavior problems in young boys and the fact that the factors that best predict behavior problems vary by age, the criteria predicted, and the characteristics of the sample (Kazdin, 1995).

The accuracy of screening procedures can be determined in different ways (Derzon, 2001). Positive-predictive value (PPV) refers to the proportion of children identified as being at risk that go on to develop ACP. By increasing the stringency of the requirements to be labeled at risk, the PPV is increased. This also increases the number of children who are labeled as not being at risk, yet go on to develop ACP (i.e., false-negative classification). A high false-negative rate results in many children who would have benefited from the intervention not receiving services.

A second type of accuracy is sensitivity, or the proportion of children who develop ACP who are correctly identified as being at risk. Relaxing the requirements to be considered at risk will increase a procedure's sensitivity. However, this will also increase the number of children inaccurately identified as being at risk (i.e., false-positive classification). This results in children being needlessly exposed to the potential negative effects of labeling and resources being used in an inefficient manner.

In selecting/designing screening procedures, practitioners balance the demands for a high level of sensitivity with those for a high PPV. They must identify which form of accuracy best meets their needs. If resources are limited, an effort may be made to increase the PPV of the procedure to increase the probability that those receiving services actually need them (i.e., reduce false positives). If there are sufficient resources and the goal is to intervene with all children at risk for a certain problem (e.g., violent behavior), efforts should be focused on increasing the sensitivity of the screening procedure (i.e., reducing false negatives).

Summary

Table 3.10 summarizes screening procedures used to identify children at risk for ACP behaviors. Current procedures are only moderately successful

TABLE 3.10. Screening for Aggression and Conduct Problems

Multiple-gating procedures

- A relatively brief and inexpensive procedure for identifing children at risk for ACP.
- An initial screening procedure, or "gate," is applied universally.
- Those who are identified by the first procedure go through a second, usually more involved, screening procedure.
- Generally two or three "gates" are used.

Accuracy of screening procedures

- Current procedures have not achieved a high level of accuracy in screening for ACP.
- Relaxing the criteria for inclusion results in reduced false-negative and increased false-positive identification (high sensitivity).
- Increasing criteria for inclusion results in reduced false-positive and increased false-negative identification (high positive-predictive value).
- Type of accuracy desired influenced by the goal of the screening and the availability of resources.

at identifying children who will exhibit ACP behavior in the future. However, they provide sufficient accuracy to assist in identifying children in need of preventive or early interventions.

CONCLUSION

The assessment of children with ACP is the first step in providing effective services. Through the use of multiple methods, multiple informants, and information from multiple settings, data is gathered that is needed to design/select effective interventions. This includes clear definitions of the problem behaviors, descriptions of functioning in multiple areas, and delineation of risk and protective factors. The assessment identifies targets for interventions and protective factors that can be utilized in addressing concerns. Having identified targets for interventions, the next step is to provide effective interventions. In the following chapters we describe best practices for interventions, targeting the factors identified through the assessment process.

PART III

CHILD AND FAMILY INTERVENTIONS

CHAPTER 4

Social Competence Training

Social competence training (SCT) refers to child-focused skills training procedures that enhance children's social-emotional competence (Beelman, Pfingsten, & Losel, 1994). In this chapter, SCT refers to training procedures that attempt to enhance many areas of children's social and emotional adaptation. Therefore SCT includes behavioral social skills training, social-cognitive training, and emotional skills training, as well as environmentally based strategies that support children's social and emotional skills development. The SCT methods we discuss in this chapter are used primarily with children who exhibit ACP, as well as with children manifesting hyperactivity/impulsivity.

We hypothesize that SCT reduces risk factors and promotes protective factors primarily in the child and social/peer life domains (see Tables 2.3 and 2.4 in Chapter 2). In particular, SCT diminishes the behaviors associated with ACP and influences the development of social, emotional, and self-regulation skills, thereby potentially leading to more adaptive social interactions and affiliations.

This chapter is divided into three main sections. We begin by presenting an overview and research evaluation of the SCT literature. Next we discuss the common delivery methods that are used to teach children the skills involved in SCT. Finally, we present typical content of what children actually learn in SCT. We also provide examples of different procedures and content.

OVERVIEW AND RESEARCH EVALUATION OF SOCIAL COMPETENCE TRAINING

SCT for children manifesting ACP targets several relevant areas (Beelman et al., 1994; Crick & Dodge, 1994; Dumas et al., 1994; Kazdin, 1996a;

Lochman & Lenhart, 1993; McFadyen-Ketchum & Dodge, 1998). One target is reducing children's aggressive/disruptive behavior such as yelling, pushing, arguing, and butting in line. Another target is increasing children's prosocial interaction behaviors such as entering a group, starting a conversation, participating in activities, sharing, cooperating, asking questions, and listening. Still another target is correcting the cognitive deficiencies and distortions exhibited by many children with ACP. A final target includes ameliorating emotion regulation and self-control problems to reduce emotional lability, impulsivity, and inaccurate self-evaluation in children with ACP. There is considerable overlap across the four target areas; in actual practice SCT usually focuses on all of them simultaneously. Once these target areas have been improved, the child's social development should progress in a more normative or resilient fashion.

A variety of SCT interventions have been developed to improve children's functioning in the four target areas (Beelman et al., 1994; Bierman, Greenberg, & Conduct Problems Prevention Research Group, 1996; Greenberg, Kusche, Cook, & Quamma, 1995; Guevremont, 1990; Guevremont & Foster, 1993; Kazdin, 1996a; Prinz, Blechman, & Dumas, 1994; Webster-Stratton, 1996b). One category of intervention, based on operant behavioral techniques, reduces interfering behaviors in children such as hitting, name calling, and "bugging" others. Another category of interventions teaches children social behavior skills such as participating, joining a group, conversing, playing fair, cooperating, sharing, and communicating better (e.g., asking questions, listening to others). Still another category of interventions teaches children to use adaptive thinking skills such as perspective taking, situation interpretation, self-monitoring, verbal self-instructions, and problem solving. A final category of interventions teaches children to better understand/express their feelings and to control strong emotions such as anger or stress. Most SCT intervention models incorporate most or all of these different interventions. SCT methods have also evolved in recent years to include parental and teacher involvement in the training process.

Research reveals that SCT brings about improvements in the functioning of children with ACP. Contingency management interventions that reinforce prosocial behaviors and punish aggressive behaviors do modify children's behaviors in the training setting, but have little generalizable effect on their behavior outside sessions (McFadyen-Ketchum & Dodge, 1998). Yet most practitioners agree that external behavioral management is essential in conducting SCT with aggressive and disruptive children (Kendall & Braswell, 1993). When children are taught adaptive social behavior skills, their aggressive behavior declines and their adaptive social behavior increases (Bierman & Furman, 1984; Bierman, Miller, & Stabb, 1987; Prinz et al., 1994; Webster-Stratton & Hammond, 1997). These social behavior interventions are more powerful if combined with cooperative peer activities and/or with behavior management of children's misbehavior in the training sessions (Bierman & Furman, 1984; Bierman et al., 1987). Interventions that attempt to modify the way impulsive children and children with ACP think reduces hostile attribution biases (Hudley et al., 1998; Hudley & Graham, 1993), improves perspective-taking skills (Chandler, 1973; Urbain & Kendall, 1980), enhances self-monitoring abilities (Hinshaw, Henker, & Whalen, 1984a, 1984b), and enables children to use self-statements to control their behavior (Kendall & Braswell, 1993; Kendall, Reber, McLeer, Epps, & Ronan, 1990). In particular, Kazdin and colleagues found that problem-solving training improves aggressive/antisocial children's behavior in both school and home settings, with improvements maintained for 1 year (see Kazdin, 1996a, for a review). Training of children in emotional awareness, self-control, and problem solving has resulted in greater feeling expression/fluency, improved frustration tolerance, and better social relationships in school (Greenberg et al., 1995). Finally, "anger coping" interventions that combine anger management and social problem solving improve children's social problem-solving skills and reduce their disruptive behavior in school settings, with behavioral improvements maintained at 7-month follow-up and low substance use rates at 3-year follow-up (Lochman & Lenart, 1993; Lochman & Wells, 1996).

The Section on Child Clinical Psychology (Division of Clinical Psychology) of the American Psychological Association evaluated various interventions used with children and designated them as either "well established" (similar to proven) or "probably efficacious" (similar to promising) (see Lonigan, Elbert, & Johnson, 1998, for a discussion of the criteria). As part of this effort, Brestan and Eyberg (1998) examined numerous studies evaluating treatments designed specifically for children with ODD and/or CD. Brestan and Eyberg determined that problem-solving skills (Kazdin, Esveldt-Dawson, French, & Unis, 1987a, 1987b; Kazdin, Siegel, & Bass, 1992) and anger-coping training interventions (Lochman, Burch, Curry, & Lampron, 1984; Lochman, Lampron, Gemmer, & Harris, 1989) are probably efficacious SCT interventions with school-age children. These intervention protocols have been subjected to rigorous evaluation to support their efficacy.

Although the literature reviewed above suggests that SCT has efficacy, this positive view needs to be tempered by the conclusions of Taylor, Eddy, and Biglan (1999) in their examination of the SCT literature specifically applied to children with ACP. Taylor and colleagues reviewed 19 studies that (1) reported intervention results on measures of aggression/antisocial behavior, (2) used a randomized/controlled design, and (3) were published in peer-reviewed journals. Using these criteria, Taylor and colleagues identified one study with preschool children, 15 studies with school-age children, and three studies with adolescents. They found SCT interventions were "moderately" effective, but of "limited" value in and of themselves. According to Taylor and colleagues, most studies obtained short-term statistical improvements, but provided little evidence of long-term clinically significant effects. Taylor and colleagues concluded that SCT should only be used as part of a more comprehensive approach that includes evidence-based parent, family, and classroom interventions.

Another limitation we have observed in current research is the lack of attention to ACP subtypes. There are few SCT interventions specified for subtypes of ACP (e.g., SCT for relational aggression). Studies examining the usefulness of SCT protocols with ACP subtypes (e.g., problem-solving training with relationally aggressive children) are also rare. Research evaluating SCT applied to different ACP subtypes is needed.

To summarize, there are differences in the conclusions reached by researchers as to the utility of SCT for children with ACP. Many researchers have found that SCT improves the functioning of children with ACP, but the magnitude of such changes is not always clear. Taylor and colleagues (1999) suggested that SCT by itself will have limited utility in reducing ACP-related behaviors and enhancing development. In view of the research findings, we agree with Taylor and colleagues that SCT should be used as one component of an overall comprehensive intervention with children that have ACP (see Chapter 11 for a discussion of multicomponent interventions).

BEST PRACTICE MODELS FOR SOCIAL COMPETENCE TRAINING

We selected nine SCT models for preschool- and school-age children with ACP and ADHD to derive best practices. These SCT models have been extensively evaluated and have demonstrated utility in improving the developmental status of children with ACP (see citations below for details). We integrate common practices across these models and highlight specific procedures. The nine SCT model programs include (l) Bierman and colleagues' (Bierman & Furman, 1984; Bierman et al., 1987, 1996) social skills training; (2) Webster-Stratton and colleagues' (Webster-Stratton, 1996b; Webster-Stratton & Hammond, 1997) Dinosaur School program for young children; (3) Prinz and colleagues' (Prinz et al., 1994) Peer Coping training; (4) Greenberg and colleagues' (Greenberg et al., 1995) Promoting Alternative Thinking Strategies (PATHS); (5) Hudley and colleagues' (Hudley, 1994; Hudley et al., 1998; Hudley & Graham, 1993) BrainPower attributional retraining program; (6) Hinshaw and colleagues' (Hinshaw, 2000; Hinshaw et al., 1984a, 1984b) self-monitoring training; (7) Kendall and colleagues' (Kendall & Braswell, 1993; Kendall et al., 1990) verbal self-instruction training; (8) Kazdin and colleagues' (Kazdin, 1996a; Kazdin et al., 1987a, 1987b) problem-solving skills training; and (9) Lochman and colleagues' (Lochman, Lampron, Gemmer, & Harris, 1987; Lochman & Lenart, 1993; Lochman & Wells, 1996; Lochman, Whidby, & FitzGerald, 2000) Anger Coping program. The rest of this chapter describes the best practices for SCT from these models. Braswell and Bloomquist's practice model for SCT will also be occasionally reviewed to elaborate standard procedures (Bloomquist, 1996; Braswell & Bloomquist, 1991).

BEST PRACTICE DELIVERY PROCEDURES FOR SOCIAL COMPETENCE TRAINING

Our focus in this section is on how the practitioner delivers or conducts the SCT intervention. Discussion includes the methods used by the practitioner to convey information and teach skills to children. We discuss the content of the SCT interventions later in the chapter.

Practitioner Characteristics

Effective practitioners are able to form positive relationships with children and maintain a position of authority when conducting SCT. The practitioner should be enthusiastic, outgoing, and use humor to establish rapport with children. At the same time the practitioner will need to be firm and provide limits as needed. The balance between building rapport and establishing a sense of authority can be a challenge. In our experience, those practitioners who emphasize one over the other are less effective.

It is also necessary that practitioners have proficiency in the application of SCT with children manifesting ACP. It is very important that practitioners are extensively trained prior to delivering SCT, and that less experienced practitioners are supervised throughout its implementation. Practitioners should strive to conduct SCT according to best practices (discussed below).

Training Methods

Typically four to eight children meet with two practitioners in a small-group setting. Often one practitioner uses methods to "manage" the behavior of the children, while the other delivers the SCT content. Both practitioners need to be actively involved in interacting with all of the children in the group and to provide them with feedback about their behavior.

The composition of group membership should be carefully considered. Most SCT models recommend that children in a group be no more than 2 years apart in age. With younger preschool children, it is best to have same-gender groups if possible. As children grow older, mixed-gender groups are effective. In our experience, it is ill-advised to conduct an SCT group comprised of only severely aggressive children. Too many children with severe problems can make it too challenging to conduct the group. The practitioners might end up spending most of their group time managing the aggressive and oppositional behaviors of children rather than teaching SCT skills. We recommend that each group be composed of children with a range of problem severity (from mild to severe).

Many practitioners advocate enrolling "normal" peers in SCT groups. These normal peers can be involved in the skills training interventions and/or serve as "buddies" in supervised structured dyadic cooperative activities. Normal peers can function as role models of prosocial behavior. There is also the potential for new affiliations to develop between children with ACP and prosocial children. Involvement of normal peers has been found to be beneficial for aggressive children as well as for the normal peers (Prinz et al., 1994).

Practitioners use behavioral training methods in conducting SCT with children. Skills are taught using instruction, modeling, role playing, practice, feedback, and reinforcement methods. Practitioners promote and reinforce the application of skills throughout the sessions. Practice of skills is facilitated through games and activities. Coping with actual problems that emerge within the group can also be a useful training task. For example, if two children have a conflict or the group cannot agree on what to do, the SCT skills can be used to solve these "real-life" social problems. Homework assignments are given to children so that they can practice using their skills outside of the training situation.

Guevremont's (1990) summary of behavioral instructional techniques used in teaching SCT skills is similar to those espoused in the best practice models:

1. Introduce the skill.
2. Verbally instruct the children about the skill (e.g., listening with good eye contact).
3. Model the skill for the children to observe. Typically a "bad" model (e.g., listening with poor eye contact) is contrasted with a "good" model (e.g., listening with good eye contact).
4. Practitioner role-plays with a child to demonstrate the skill.
5. Children perform role plays with each other to demonstrate the skill. It can be helpful to videotape these role plays.
6. Practitioner continues to coach, model, discuss, and provide feedback to the children regarding skill acquisition.
7. Role-play videos are reviewed and discussed. Practitioner offers feedback and additional instruction to the children.
8. The skill is summarized.
9. A homework assignment is given so the child can utilize the skill outside the group-training situation.

These instructional techniques are repeated with each new skill (we review specific skill areas below). Practitioners evaluate children's performance of the skill in role plays and in practice situations to determine whether or not they have mastered the skill. Once mastery is achieved, a new social behavioral skill is introduced for training.

Most SCT programs require children to demonstrate mastery of skills in the training situation before moving on to additional skills. This means that the practitioner has judged a particular child as having incorporated a skill into his or her repertoire. Sometimes different children in the same group master the skills at a different pace. If that occurs, it may be necessary to move ahead with the group content, but pause to review particular skills with those children who are struggling with their mastery.

Behavior Management

Most SCT programs incorporate behavioral management techniques into the group training process. Behavior management serves several purposes. First, it makes the group training process more feasible. Conducting group training with very active and potentially disruptive children can be challenging. Behavior management brings some order into the training situation. Second, behavior management can assist an individual child. It is helpful for a child's aggressive, defiant, hyperactive/impulsive behaviors to be brought under control so that he or she can be more receptive to learning new skills. Behavior management brings some order to the child's behavior and allows the child to acquire new skills.

One method of behavior management is to employ group rules. The group rules are often created during the first session with input from the children. These rules might include no hitting, raise your hand before speaking, maintain confidentiality (e.g., "what's said in group stays in group"), and so on. The practitioner should write down these rules and refer to them as needed to remind the children.

A token or point system is also recommended for use in SCT groups. Usually tokens are used for younger children (under age 8) and points are used for older children. Children can earn tokens or points for exhibiting specified behaviors. For example, they receive tokens/points for following directions, sharing, or employing the new social skill that day (e.g., problem solving). Some SCT programs use a response–cost technique in which children lose tokens/points for incorrect performance of the skills being trained or for disruptive behavior. For example, they lose tokens/points for noncompliance with directions, aggressive behavior, or interrupting others. The practitioner shapes children's behavior by verbally informing them when they have earned or lost tokens/points. The earned tokens/points can be traded in at the end of the session for small tangible rewards/privileges or can be "banked" (saved) over sessions to save up for bigger rewards/

privileges. Often the token/point system is gradually faded out over the sessions so children rely on them less and less as they learn new skills. Practitioners need to use their own judgment as to how children are progressing to determine if and when the token/point system is faded out.

A "strike" system can be used to manage behavior that cannot be brought under control using rules and tokens/points. It involves children receiving up to three verbal warnings (i.e., strikes) about their noncompliant and aggressive behavior. If a child receives a third warning (strike), he or she has "struck out" and must leave the group for the remainder of that session. The child is readmitted to the next session and allowed to participate in group.

Figure 4.1 is an example of a group points chart that incorporates points and strikes. The practitioner keeps track of the children's behavior and administers points and strikes accordingly. This particular example tracks general "positive" and "negative" behaviors. This allows the practitioner to shape unique behaviors in each child attending the group. For example, one child could be shaped for sharing, while another could be shaped for raising hands before speaking. Another option is to alter the group points chart to indicate *specific* positive behaviors such as sharing, following directions, or asking questions and specific negative behaviors such as disobeying adults, hitting, or name calling. In a similar fashion, points would be gained or lost for the specific behaviors. This specific approach allows the practitioner to shape certain behaviors in all of the children.

Time-out is often effective with mild-to-moderate forms of aggressive/defiant/disruptive behavior. This procedure entails the practitioner giving the child a command (directive), followed by a warning if the child is noncompliant with the command, followed by putting the child in a time-out area or taking away a privilege if he or she does not comply after the warning. Time-out is described in more detail in Chapter 5.

The structure and content of the group sessions need to be delivered in an engaging and fun way to reduce the likelihood of disruptive behavior in children. The presentation of session content and materials should be well paced. Structure is essential so that group norms and procedures are established and repeated each session. For example, a routine for each session might include "checking in," introducing a new skill, practicing a new skill, cleaning up, having snacks, and doing a fun activity. Interesting games, activities, and videos keep children involved and out of mischief.

Number of Sessions

Approximately 18–22 weekly sessions lasting 40–120 minutes each are employed in many SCT programs. The exact number of training sessions and the length of the sessions vary across each of the best practice model pro-

Date: ______________________

Child's name	Points earned (1 point for positive behavior and for using problem solving when reminded, 2 points for using problem solving without being reminded)	Points lost (for mild disruptive behavior)	Strikes (circle)	Total points (summary of points earned minus points lost)
1. Latoya	||||||||||||	|||	① 2 3	9
2. Michael	|||||||||	||	1 2 3	7
3. Malcolm	|||||||||||||||	|||||	① ② 3	10
4. Alisha	||||||||||||	|	1 2 3	11
5. Jordon	|||||||||||		1 2 3	11
6. Maria	|||||||||||||||	||	① 2 3	13
7.				
8.				

FIGURE 4.1. Group points chart. From Braswell and Bloomquist (1991). Copyright 1991 by The Guilford Press. Adapted by permission.

grams. Our experience has taught us that fewer and shorter sessions may be indicated for younger children learning a few skills, whereas more and longer sessions may be needed for older children who are being exposed to more skills training areas. Practitioners need to use their own judgment to decide the number and length of sessions.

Three to six sessions are typically devoted to any one specific content area. For example, four sessions might be devoted to learning specific social behaviors such as starting conversations, sharing, and maintaining eye contact, while six more sessions might be used to teach an anger management module. Obviously the main goal is for children to master the new skills

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they are learning. The number of sessions necessary to achieve mastery will vary for different children. Practitioners need to use their judgment to specify how many sessions will be needed to teach specific skills to a given group of children.

Training Materials and Games

Effective use of training materials enhances the delivery of SCT. Certain training materials aid in skill presentation. Puppets can be used to present information to children, to instruct them, to model skill use, and so forth. Puppets are particularly engaging for younger children. A picture stimulus that depicts the skill being taught (e.g., a picture of children sharing) can be shown to children to illustrate a skill and elicit discussion. Similarly, video modeling, in which children view videos of other children engaged in problematic situations or using specific SCT skills, can be useful. These videos serve as a stimulus for discussion and also function as a model for the skills being taught. Webster-Stratton (1996b), for example, produced over 100 video vignettes depicting children in different social situations and using a variety of SCT skills.

Training materials also facilitate children's practice of skills they are learning. For example, when learning problem-solving, games such as "problem-solving recognition charades" (Braswell & Bloomquist, 1991) help children continue to learn how to recognize problems. A "TV talk show" game (Guevremont, 1990) helps children practice conversational skills by taking turns being a "host" and a "guest" on a pretend TV talk show. Other games, skits, and activities that match the skills being taught can be developed by the practitioner to further the training process.

Many practitioners use charts and related training materials to facilitate skill usage outside the training situation. For example, a "problem-solving steps" chart might be given to children to take home to share with their parents, who in turn use it to prompt them to use the skill at home. Practitioners can design their own charts to fit the unique training content of the group of children being served.

Other games can be used to facilitate cooperation and sharing. Cooperative board and physical games have been found to increase cooperation among preschool children (Bay-Hintz, Peterson, & Quilitch, 1994). Teamwork activities, such as constructing a group poster, are useful to help children learn to work together. Practitioners can facilitate training of other social skills by creating other games or activities.

Making Adjustments According to Children's Developmental Level

All SCT models advocate adjusting procedures and content to match the developmental level of the children being served. A general rule of thumb is to make the interventions more concrete and to rely more on environmental support when using SCT with younger children. For example, younger children can be taught how to solve problems. To do this, however, the practitioner should rely less on verbal didactic training and incorporate more games and role playing. It is especially important for adults to encourage, prompt, and reinforce younger children in the use of newly learned skills outside of the training situation.

Promoting Generalization and Maintenance

One goal of SCT is for children to use the skills they are taught in "real-life" situations. Careful use of specific training procedures will promote generalization. Children should learn and then practice skills with a variety of training tasks. For example, in training problem-solving skills, hypothetical problems are used to introduce and practice problem-solving skill application. Later, children bring in real-life examples of social problems, which can become the basis of a role-play exercise. After a while, problem-solving skills might be used to solve the actual problems that emerge between children while participating in the group. Other skills can also be taught and practiced using a variety of training tasks and situations.

After SCT has been completed, it is useful to have children come back into a training situation periodically for booster or follow-up sessions. If this cannot be arranged, it may be helpful to have long-term follow-up with an individual child and family for booster training. The follow-up provides the practitioner with the opportunity to determine if the newly acquired skills have been maintained and to plan further interventions if indicated.

Social Competence Training with Parent and Teacher Involvement

Parents are typically involved in SCT in one of two ways. The first method entails simultaneously training children in SCT and parents in parent management interventions (like those discussed in Chapter 5). The second method involves training parents to guide their children in using the skills they are learning in SCT. In other words, parents can be involved in learning to manage their children's disruptive behaviors and also in assisting them to use new social skills at home.

Practitioners need to make sure that the home and school environments are prepared to support the newly acquired skills that children have learned through SCT. Providing charts, handouts, or manuals to parents and teachers, for example, on how to prompt, remind, and reinforce the application of skills in the home and school environments would achieve this goal. Bloomquist (1996), for example, wrote a parent-focused instruction guide that explains different procedures and provides numerous charts to aid implementation of various SCT-related skills in the home environment. Figure 4.2 is an example of a worksheet that could be used by parents to promote social skills use at home.

Summary

Table 4.1 summarizes the best practices for the delivery of SCT. This table provides a list of key procedures that need to be incorporated in SCT. We recommend that practitioners use all of the delivery procedures to ensure that an effective SCT program is delivered to children with ACP.

BEST PRACTICE TRAINING CONTENT AREAS FOR SOCIAL COMPETENCE TRAINING

In this section we focus on what children learn during SCT. We break the training content down into specific skill areas. Children are trained in these specific skills using the training methods just reviewed.

Social Behavior and Communication Skills Training

All SCT programs provide for direct instruction and coaching of children to promote development of overt social behaviors. These social behaviors include helping, sharing, taking turns, starting conversations, expressing feelings, asking questions, listening to others, ignoring, complementing, talking briefly, working as a member of a team, being assertive, apologizing, accepting apologies, and so on. Usually an attempt is made to individualize the exact skills taught to match the skills deficits of the children receiving social behavioral skills training. In other words, the practitioner chooses the social behavior skills that are most important to work on for a particular child or group of children. The practitioner uses instructing, modeling, role playing, and practicing to teach children each skill.

Children can also be taught social behavioral communication skills through the Prinz and colleagues (1994) Peer Coping skills intervention. In this program, children learn to effectively express their thoughts, feelings, and experiences to other children. They learn nonverbal communication skills, such as maintaining eye contact and how to display appropriate affect, that is, affect that matches the content of what they are saying. The children also learn to listen to others. They learn to summarize what the other person is saying, ask questions, use good eye contact, remain silent until the speaker is finished, and show appropriate affect while listening. The Prinz and colleagues protocol also incorporates teaching children behavioral self-regulation and problem-solving strategies.

In Peer Coping skills training, children are exposed to a series of "probe challenges" as training tasks to learn the social information ex-

Name: *Tony*

Date: *Saturday*

Directions: The parent and/or child can complete the form, but all involved should discuss it. Complete Steps 1 and 2 before the social event and Steps 3, 4, and 5 after the social event.

Before Social Event

1. **I will work on these social behavior goals:**

Speaking to other children and making eye contact.

2. **When and where I will work on the social behavior goals** (designate time and place):

Saturday morning at baseball practice.

After Social Event

3. **How well did I accomplish my social behavior goal?** (circle one)

1	2	3	[✓ 4]	5
Not at all	A little	OK	Pretty good	Great
☹		😐		☺

4. **What did I do that tells me how to rate myself?** (Write down how you know you deserve the above rating.)

I talked to Chris and Steve about the next game. I looked into their eyes when I talked to them. I asked Mr. Jackson to throw some balls to me. I looked into his eyes, too.

5. **If my parent agrees with my rating and it is a 3, 4, or 5, I get this reward:**

Pizza for supper.

FIGURE 4.2. Practicing social behavior skills. From Bloomquist (1996). Copyright 1996 by The Guilford Press. Reprinted by permission.

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TABLE 4.1. Summary of Best Practice Delivery Procedures for Social Competence Training

Delivery procedure	Best practices
Practitioner characteristics	Establish relationships, provide structure, display enthusiasm, follow standardized protocols.
Training methods	Carefully compose small groups and include "normal" peers; use instruction, modeling, role plays, practice, feedback, reinforcement, and homework.
Behavior management	Use group rules, token/point systems, time-out; provide structure and routines.
Number of sessions	Approximately 18–22 40- to 120-minute weekly sessions are needed to deliver an SCT intervention program; typically three to six sessions are needed to teach each content skill area.
Training materials and games	Use picture stimulus cards, videos, games, and charts to promote skill acquisition and practice.
Making adjustments according to children's developmental level	Incorporate more concrete training methods and environmental support for younger children.
Promoting generalization and maintenance	Vary training tasks, prepare natural environment to prompt and reinforce skills, and use "booster" sessions.
Social competence training with parent and teacher involvement	Train parents in behavior management; provide instruction to parents and teachers so they can prompt, guide, and reinforce skills usage at home and at school.

change skills. Table 4.2 displays these probe challenges. Dyads are formed and coached in conducting conversations. The dyads are given instructions to center their conversations around these probes. An example listening probe is "Find out about something that worries your partner this week." An example speaking probe is "Tell your partner about something that hurt you this week." Probes are calibrated so that some are easy and others are more difficult. The children must achieve mastery over easy probes before going on to more difficult probes.

Children are trained to reach the "cumulative goals" for listener and speaker probes outlined in Table 4.3 while responding to the previously described probe challenges. These cumulative goals are concrete behaviors they learn to emit while developing information exchange skills. The practitioner trains children to gradually master these behaviors. Prinz and colleagues hypothesized that the Peer Coping intervention not only helps children learn concrete communication skills, but also enables them to learn an adaptive coping style for dealing with adversities in life.

Affective Education

Affective education, commonly used in SCT, is a first step in helping children learn to control their emotions and behaviors. Children are taught to understand and express their feelings. This is accomplished by increasing their "feelings vocabulary," the words they use to identify and express feelings. Figure 4.3 displays an example of a feelings vocabulary chart. Children are instructed to practice using feeling words to describe their feelings about their experiences. Some practitioners employ a Feelings

TABLE 4.2. Probe Challenges Used in Peer Coping Skills Training

1	L	Find out something that makes your partner special.
1	S	Tell your partner about something that makes you special.
2	L	Find out something that made your partner laugh this week.
2	S	Tell your partner about something that made you feel happy this week.
3	L	Find out about your partner's family.
3	S	Tell your partner something that you like about school this week.
4	L	Find out about something that your partner did really well this week.
4	S	Tell your partner what you want to be when you grow up.
5	L	Find out about something that made your partner feel excited this week.
5	S	Tell your partner about one of your heroes.
6	L	Find out about something your partner thinks is beautiful.
6	S	Tell your partner about something that made you feel angry this week.
7	L	Find out about something that made your partner feel peaceful and quiet this week.
7	S	Tell your partner about someone you love.
8	L	Find out about something that is hard for your partner to do.
8	S	Tell your partner about something that scared you this week.
9	S	Tell your partner about something that embarrassed you this week.
9	L	Find out something that made your partner angry this week.
10	L	Find out about something that made your partner sad this week.
10	S	Tell your partner about something that made you jealous this week.
11	L	Find out about something that worries your partner this week.
11	S	Tell your partner about something that hurt you this week.
12	L	Find out about something that annoyed your partner this week.

Note. L, listener probes; S, speaker probes. From Prinz, Blechman, and Dumas (1994). Copyright 1994 by Lawrence Erlbaum Associates. Reprinted by permission.

Diary in which children write down experiences they have and how they feel about them. A child might write down, for example, that he or she was teased by some children and felt sad and lonely, or got a good grade on a school assignment and felt joyful and satisfied. Practitioners can model feelings expression and guide children to identify and express their own feelings.

Social Perspective-Taking Training

The goal of social perspective-taking interventions is to help children learn to understand how others think and feel. They typically begin with discus-

TABLE 4.3. Cumulative Goals for Listener and Speaker Probes Used in Peer Coping Skills Training

Listener probes

1. Follows instructions.
2. Remains silent during speaker's statement.
3. Maintains appropriate eye contact with speaker.
4. Uses nonverbal gestures to show understanding/interest in speaker's statement.
5. Shows affect appropriate to speaker's statement.
6. Asks one question about speaker's statement using speaker's words.
7. Asks several questions about speaker's statement using speaker's words.
8. Summarizes one of speaker's statements using speaker's words.
9. Summarizes several of speaker's statements using speaker's words.
10. Asks whether his or her summary of speaker's statement is accurate.
11. Asks a question to clarify an aspect of speaker's statement that was not understood.
12. Asks a question that requires speaker to expand statement.

Speaker probes

1. Follows instructions.
2. Readily heard and understood.
3. Begins speaking within 5 seconds.
4. Shows affect appropriate to statement.
5. Uses eye contact and other nonverbal gestures to capture the interest of listener.
6. Makes a unique statement and does not duplicate what others have said.
7. Makes coherent, meaningful statements that are readily understood and make sense.
8. Conveys details sufficient to tell story with beginning, middle, and end.
9. Makes personal statements when telling his or her story.
10. Tells how he or she felt or feels about his or her story using appropriate words to describe the feelings.
11. Makes only genuine statements evidencing an ability to distinguish fact from fiction such that his or her total narrative seems credible.

Note. From Prinz, Blechman, and Dumas (1994). Copyright 1994 by Lawrence Erlbaum Associates. Reprinted by permission.

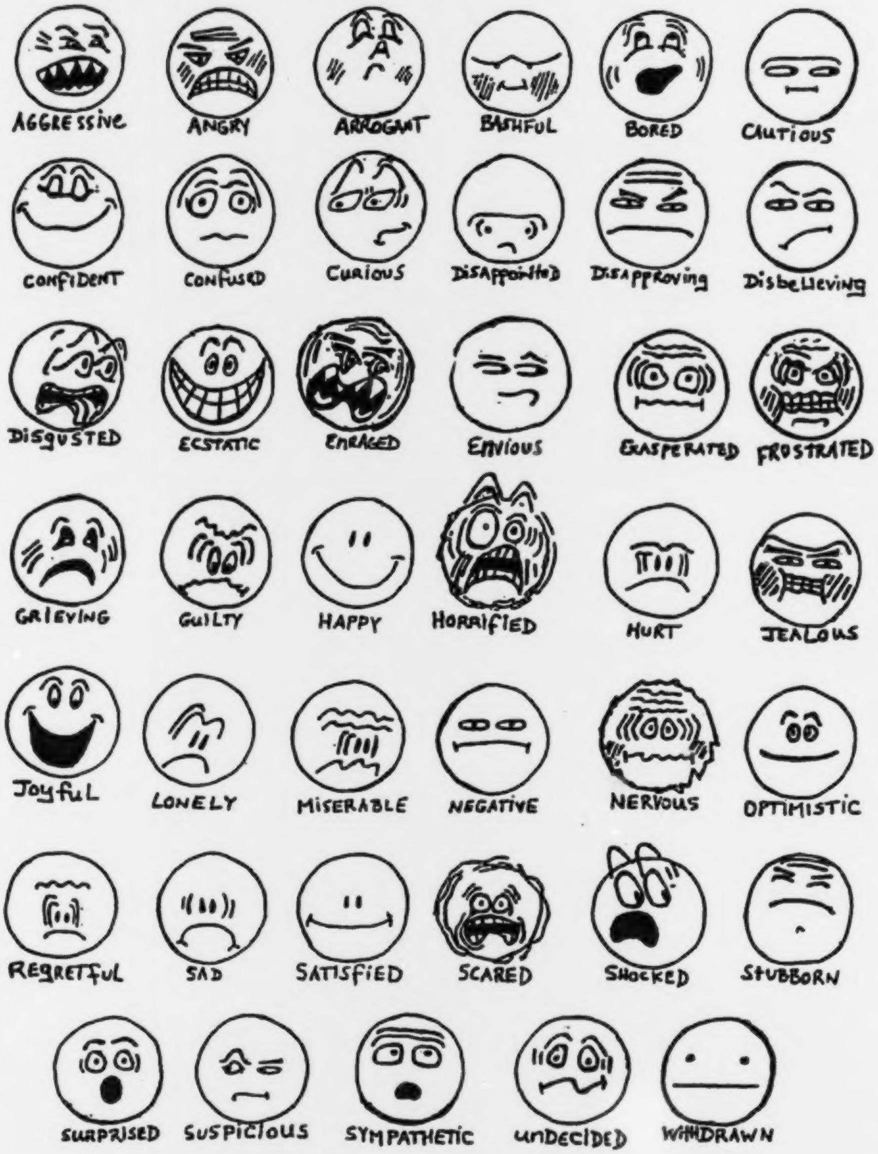

FIGURE 4.3. Feelings Vocabulary Chart. From Bloomquist (1996). Copyright 1996 by The Guilford Press. Reprinted by permission.

sions of others' thoughts and feelings in interpersonal situations. Practitioners present scenarios of social situations involving peers, teachers, and parents. These scenarios are often presented through picture stimulus cards or videos. For example, a picture stimulus might depict two children who want to use the same red crayon while they are coloring pictures, with one child using the crayon and the other looking at it. The group discusses the

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facial cues, body postures, and possible thoughts of the children depicted to determine the feelings of each child in the picture. Group members infer the thoughts and intentions of each child depicted in the scenario. Children are essentially taught to put themselves "in the other person's shoes."

Role-play exercises where children take turns acting out scenarios can be useful in training social perspective-taking skills. For example, children can act out the scenario involving the red crayon as described in the previous paragraph. During the middle of the role play the children stop to discuss their thoughts and feelings and what they perceive to be the thoughts and feelings of the other child. They switch roles halfway through the role-play exercise, act out the same scene again, stop again, and discuss their new role. Another technique involves videotaping the role-play scenarios and reviewing the videos later. While watching the videos, group members can talk about what they think others thought and felt.

Children can also be taught observable social behavior skills related to displaying empathy. To accomplish this, children are instructed to listen to others, express care and concern when others have hurt feelings, and engage in prosocial behavior such as sharing and helping. This intervention is similar to the communication skills training discussed earlier (Prinz et al., 1994). Children also discuss how good they feel inside by empathizing with and helping others.

Attribution Retraining

Attribution retraining focuses on remediating the hostile intent bias observed in many children with ACP. In the BrainPower program developed by Hudley (1994), aggressive school-age boys are engaged in a number of didactic, experiential, role-play, and homework experiences to learn to make accurate attributions for others' behavior. Children first learn a definition of intent such as "what someone meant to do." They discuss the consequences of making mistakes in determining others' intent and how such mistakes relate to the development of conflict between people. They learn to identify the intent of another person by examining the other person's facial expressions and their own feeling responses. Through discussion and role play, children learn to determine if someone did something to them on purpose, accidentally, or for some other possible reason. For example, social dilemmas are presented to children such as "A friend does not return a borrowed videogame." Children write down different explanations depicting hostile (e.g., "He's trying to steal it") or nonhostile (e.g., "He forgot") reasons for the other child's behavior. They discuss which one of the explanations might be the most likely one. They engage in discussion and role-play exercises about a variety of ambiguous situations and practice determining causes for them.

Other practitioners have incorporated similar procedures for attributional retraining. Braswell and Bloomquist (1991), for example, described "situation interpretation" training for school-age children. This involves determining the intent of other individuals in potential conflict situations. Children are educated about the tendency to "jump to conclusions" regarding others' behavior. They discuss the fact that sometimes people jump to conclusions without having satisfactory evidence to support those conclusions. They are trained to try to "find the evidence" to help them justify the conclusions that they reach. For example, children might discuss and then role-play getting bumped in the hallway by another child. They generate potential explanations for this behavior such as "he did it on purpose," "he slipped," or "he was pushed by someone else." Children learn to find the evidence, or "signals," that would justify any of these possible conclusions. This includes discussion of the facial expressions and the body postures of the individuals involved. They note the other person's reaction after the incident occurs. Eventually, the evidence is accumulated and examined so that an accurate attribution about the child who bumped into the other child can be made.

Braswell and Bloomquist also discussed a "Kids' Court" training exercise as an example of situation interpretation. This involves role-playing ambiguous conflictual situations and conducting a "trial." The child who receives the ambiguous provocation acts as both the "prosecuting and defense attorneys." The practitioner acts as "judge," and other group members act as the "jury." The child takes turns presenting the evidence to support the view of "he did it on purpose" or "he did it by accident." The judge and jury weigh the evidence, and finally make a decision regarding the "verdict." Through this process, children learn to examine evidence to justify the conclusions that they make regarding other peoples' behaviors and intentions. For example, the role play could center around one child spilling the milk of another child in the lunchroom at school. The trial could be used to determine if the child spilled the milk on purpose or for some other reason.

Self-Monitoring and Self-Evaluation Training

Enabling children to increase their self-awareness and to better observe themselves is the goal of self-monitoring and self-evaluation training. Hinshaw (2000) described a small-group training exercise to improve this skill in elementary school-age children. First, a social behavioral skill is introduced to the group—for example, paying attention, cooperating, or helping others. The children discuss the behavior extensively. They role-play positive and negative examples of the behavior until all the children know how to perform the behavior. Then they engage in tasks/activities that elicit the behavior (e.g., group members draw pictures with one box of crayons while working on sharing). Occasionally, practitioners will prompt children about the social behavior that they are working on for that session.

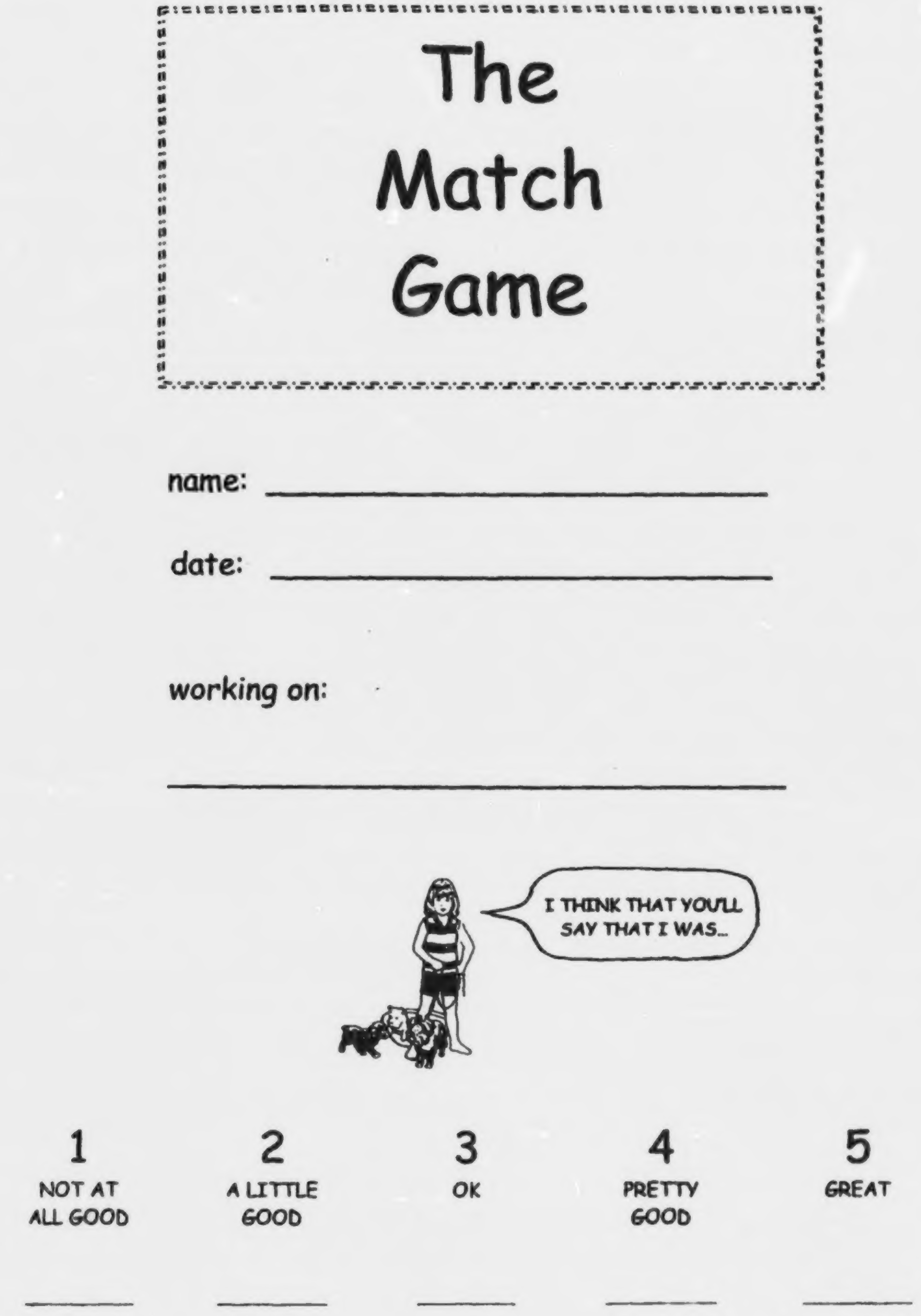
At different intervals during the meetings, children will stop and play the "Match Game." Figure 4.4 offers a Match Game chart. Two practitioners initially model the use of the Match Game. Later, each child "plays" the "game." It involves the child rating how he or she thinks the practitioner will evaluate him or her for working on a specified behavior (e.g., sharing) according to a scale of 1 (not at all good) to 5 (great). It is helpful for the child to explain why he or she thinks the practitioner will provide the anticipated rating. The practitioner then rates the child and explains his or her observations of the child's behavior to justify the practitioner's rating. Sometimes it is helpful to videotape and play back examples of behavior to the child so that he or she can learn to more accurately observe his or her own behavior. Points are awarded according to the practitioner rating. For example, 3 points are given to the child if the practitioner rates the child at a "3." To promote realistic self-appraisal, points are doubled if a match occurs. Accordingly, if the child and the practitioner both rate the child as a "3," he or she would earn 6 points.

Once the self-monitoring/self-evaluation skills have been learned, then procedures to promote generalization and maintenance are utilized. Initially, the Match Game is played several times a session, but eventually, as sessions progress, children play it only once per session. Eventually, they learn to utilize the Match Game procedure in home/school environments. Hinshaw argued that employing the Match Game with a variety of different behaviors, using it in multiple settings, and involving parents and teachers will enhance maintenance and generalization of this intervention.

Verbal Self-Instruction Training

Verbal self-instruction training helps children reflect on their behavior and use self-statements to guide and regulate it. Kendall and Braswell (1993) described verbal self-instruction training methods and procedures to train school-age children in using self-statements to guide their problem-solving efforts. The content of these self-statements is summarized in Table 4.4. Tasks are presented to children that allow them to apply and practice verbal self-instruction methods. For example, initially the tasks are impersonal, such as puzzles, matching tasks, games, mazes, mathematics problems, and so on. Eventually the tasks become more like "real life" and involve interpersonal problems and conflicts such as how to handle someone butting in line in front of you. Children role-play typical interpersonal problems that are initially supplied by the practitioner, but eventually use their own real-life problems. The children apply and practice the verbal self-instructions presented in Table 4.4 while performing these tasks.

The ultimate goal of verbal self-instruction training is for children to



The Match Game

name: ______________________

date: ______________________

working on:

____

I THINK THAT YOU'LL SAY THAT I WAS...

1	2	3	4	5
NOT AT ALL GOOD	A LITTLE GOOD	OK	PRETTY GOOD	GREAT
______	______	______	______	______

FIGURE 4.4. Match Game used in self-monitoring/self-evaluation training. From Hinshaw (2000). Copyright 2000 by The Guilford Press. Reprinted by permission.

internalize the methodical self-statement sequence. This is accomplished by employing training experiences that allow them to gradually move from using the self-statements overtly to using them covertly. Table 4.5 summarizes the training steps involved in fading the self-instructions. The children continue to work on various tasks while using the self-statements in Table 4.4. The steps outlined in Table 4.5 are utilized to help children internalize the strategy.

Problem-Solving Skills Training

Problem-solving skills training targets the distorted/deficient cognitive processes characteristic of many children with ACP by teaching them interpersonal cognitive problem-solving and prosocial behavioral skills (Kazdin, 1996a). The intervention's main goal is to teach children how to think of the components of problems and learn how to solve them effectively. Children are trained to think and state a sequential set of problem-solving statements. Typically, the statements are presented so that the children are actually asking themselves questions and answering them so as to direct their own problem-solving efforts.

Figure 4.5 depicts an example of a problem-solving chart. It guides children to utilize seven steps to solve interpersonal problems. By going through these steps the child will recognize the problem (Step 1), interpret the situation (Step 2), determine another's perspective (Step 3), generate solutions (Step 4), think of consequences (Step 5), execute behavior (Step 6), and evaluate whether or not the "plan" worked (Step 7).

Children are taught to use problem-solving strategies with a variety of training tasks. Initially, they learn to utilize them with games and activities. Later they graduate to using problem-solving strategies for interpersonal problems involving peers, parents, siblings, and teachers. Initially, the problems are practitioner-derived. Eventually, the focus shifts to real-life problems that children bring to the training situation. This can be accomplished

TABLE 4.4. Content of Self-Instruction Procedures

Problem definition:	"Let's see, what am I supposed to do?"
Problem approach:	"I have to look at all the possibilities."
Focusing of attention:	"I better concentrate and focus in, and think only of what I'm doing right now."
Choosing an answer:	"I think it's this one . . . "
Self-reinforcement:	"Hey, not bad. I really did a good job."
or	
Coping statement:	"Oh, I made a mistake. Next time I'll try to go slower and concentrate more and maybe I'll get the right answer."

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TABLE 4.5. Sequence of Fading Self-Instructions

1. The practitioner models task performance and talks out loud while the child observes.
2. The child performs the task, instructing him- or herself out loud (after sufficient practice).
3. The practitioner models task performance while whispering the self-instructions.
4. The practitioner performs the task using covert self-instructions with pauses and behavioral signs of thinking (e.g., stroking beard or chin).
5. The child performs the task using the self-instructional steps privately.

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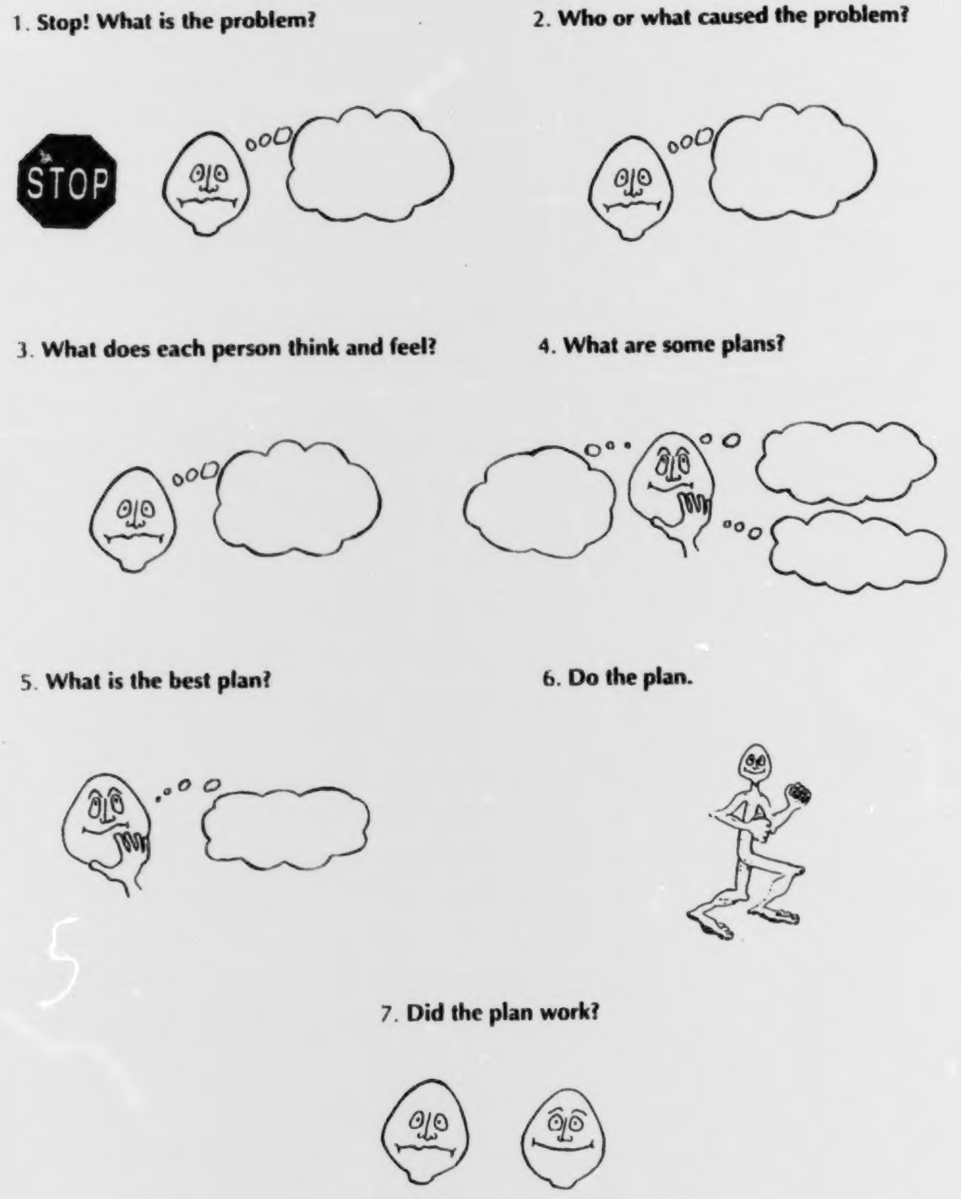
by solving actual problems that emerge as a result of children interacting together in the group. For example, two children may want to sit in the same chair. The practitioner could prompt the children to use the problem-solving steps to reach a satisfactory solution.

The sixth problem-solving step depicted in Figure 4.5 requires execution of specific behavior. Most problem-solving interventions therefore also involve the use of social behavioral skills training. Since many of these children have social behavioral skills deficits, they need to be trained how to implement the actual behaviors they think of in the process of solving problems.

Many problem-solving skills training protocols involve training within each of the component skill domains (e.g., problem recognition). For example, Braswell and Bloomquist (1991) described specific interventions to teach problem recognition, solution generation/consequential thinking, anticipating obstacles, and evaluating whether or not a solution works. To train problem recognition, they advise using games such as "problem recognition charades." During this game, children learn to recognize the signals or cues that tell them that a problem exists and then learn to interpret and define the problem. To learn solution generation/consequential thinking, children participate in brainstorming exercises in which they work to generate as many solutions to problems as possible, and then think about what would happen if the solutions were employed. To learn to anticipate obstacles, children participate in role-play exercises where their initial plans to solve a problem do not work and they need to "think on their feet" to deal with the obstacles. Evaluation of the effects of problem solving is also done through specific role-play exercises where children solve problems and think about whether or not they were effective in meeting their goals.

Anger Management Training

Children with ACP learn how to regulate emotions and behaviors through anger management training. Lochman and colleagues (1987, 2000) and Lochman and Wells (1996) articulated anger management procedures to



1. Stop! What is the problem?

2. Who or what caused the problem?

3. What does each person think and feel?

4. What are some plans?

5. What is the best plan?

6. Do the plan.

7. Did the plan work?

FIGURE 4.5. Problem-Solving chart. From Bloomquist (1996). Copyright 1996 by The Guilford Press. Reprinted by permission.

help children reduce arousal, modify thoughts, and cope with stress. These procedures are based, in part, on adaptations of Novaco's (1978) stress-inoculation paradigm. Children learn anger management skills through the process of education, skills acquisition training, and practice. Groups of children participate in discussions, role-play exercises, and other activities to learn these skills.

The first step in anger management consists of children learning to recognize when they are angry. Children describe anger in their own words. They discuss situations that elicit anger responses ("triggers"). They learn to identify the cues ("signals") that indicate physiological arousal (accelerated heart rate, muscle tense, etc.), angry thoughts ("I hate you"; "They are so unfair"; etc.), and angry actions (throwing, hitting, yelling, making facial expressions, etc.). Children learn to recognize these signals in others and then in themselves. They do this by watching videos and participating in role-play exercises. They learn to recognize the levels of anger, which can range from frustration to irritation to anger to rage. Sometimes an Anger Thermometer (a picture of a thermometer calibrated with varying "anger degrees") is utilized to help children understand how anger can range in severity.

The second step involves teaching children to cope with anger by using coping self-talk, relaxation, and effective action strategies. They learn to say self-statements such as "Stay cool," "Chill out," "It's okay, I'm not going to let this bother me," and "Take some deep breaths" as a way of reducing their arousal. Younger children learn to take deep breaths, count to 10, or imagine themselves in a relaxing situation. Older children use these techniques plus muscle tension reduction procedures such as systematically tensing and releasing muscles.

Once the children have calmed down, they need to solve the problems that made them upset to begin with. It may also be useful for these anger-prone children to learn betters ways of interacting with others to avoid future anger episodes. Therefore anger management interventions frequently incorporate many of the other SCT strategies previously mentioned into the training experience. In particular, children who are prone to anger benefit from instruction in social behavior skills, affective education, attribution retraining, and problem-skills procedures.

Combining Social Competence Training Content

Most SCT models emphasize training children in a variety of skills training domains. For example, Webster-Stratton (1996b) described a comprehensive SCT intervention (the "Dinosaur School" curriculum) applicable for 3- to 8-year-old children with conduct problems. This program utilizes a video-modeling and discussion format. It is conducted over 22 sessions each lasting 2 hours. Training content is presented to improve empathy, problem-solving skills, anger control, friendship skills, communication skills, and school behaviors. The intervention is delivered through age-appropriate methods, including child activities, puppets, and video depictions of children of similar age. Webster-Stratton and Hammond (1997) found that this child training intervention was associated with improved social behavior, problem-solving, and conflict resolution skills in young children with ACP.

Deciding Which Skills to Emphasize in Training

We recognize that it may not be feasible to deliver interventions that focus on all content areas with a particular group of children. We therefore recommend that practitioners pick and choose content skills for a specific population of children. In our opinion, younger preschool- and early elementary-age children with ACP will derive benefit from all of the content interventions, but will profit most from an emphasis on social behavior and affective skills training. Older children with ACP will benefit from those same skills and can improve their functioning through training that emphasizes the more cognitively sophisticated skills such as attribution retraining, problem-solving training, and so on. As we noted earlier, it takes at least three to six sessions to initially train children in any one content area, so practical considerations will also dictate which content areas are emphasized. Practitioners are advised to consider the developmental capabilities

TABLE 4.6. Summary of Best Practice Training Content Areas for Social Competence Training

Training content areas	Best practices
Social behavior and communication skills training	Teach children observable prosocial behaviors and verbal and nonverbal communication skills.
Affective education	Teach children to identify and label feeling states in self and others.
Social perspective-taking training	Teach children to infer others' thoughts/feelings.
Attribution retraining	Teach children to accurately determine others' intentions and to interpret situations.
Self-monitoring and self-evaluation training	Teach children to accurately observe and evaluate own behavior.
Verbal self-instruction training	Teach children to use internal private speech to regulate behavior.
Problem-solving skills training	Teach children to use methodical steps to solve interpersonal problems.
Anger management training	Teach children to recognize and cope with angry feelings and reactions.
Combining social competence training content	Combine multiple social competence training content areas into one intervention.
Deciding which skills to emphasize in training	Consider the developmental status of children and practical matters in determining which skill areas to emphasize in training.

of the children they are working with and the goals of the intervention to figure out what skills should be emphasized.

Summary

Table 4.6 provides a summary of best practices for SCT training content that can be used for children with ACP. This table reveals that there are multiple potential content areas, with considerable overlap among them. Practitioners should match the specific needs and the capabilities of the children being served and deliver content areas accordingly.

CONCLUSION

SCT is a useful intervention program for children exhibiting ACP, especially when combined with other efficacious interventions (we discuss combining SCT with other interventions in Chapter 11). We have reviewed the most common delivery procedures and content areas employed in SCT interventions applicable to children with ACP. We believe that SCT can be incorporated into clinic, school, and community settings.

CHAPTER 5

Parent and Family Skills Training

Parent and family skills training (PFST) teaches parents and families skills that enhance child, parent, and family functioning (Miller & Prinz, 1990; Taylor & Biglan, 1998). PFST addresses the behavioral characteristics of children with ACP, and the parent and family factors that can exacerbate and escalate their problems. For purposes of discussion, we define a parent as any adult who assumes a primary caretaking role with a child (e.g., biological parents, foster parents, grandparents, other guardians) and a family as the group of individuals who reside with and take care of the child.

We hypothesize that PFST reduces risk factors and promotes protective factors in the child, parent/family, and social/peer life domains (see Tables 2.3 and 2.4 in Chapter 2). In particular, PFST reduces the aggressive/noncompliant/disruptive behavior of children with ACP, enhances the parent–child relationship, improves parents' personal functioning and parenting skills, and facilitates broader family relationships. Indirectly, PFST also improves children's social skills and minimizes the impact of antisocial peers.

We present PFST in three main sections in this chapter. The first section offers an overview and research evaluation of PFST. In the second section we discuss the common delivery methods used in working with parents and families. In the third section we address the content or skill areas taught to parents and family members. Our focus is on PFST interventions geared toward preschool- and school-age children.

OVERVIEW AND RESEARCH EVALUATION OF PARENT AND FAMILY SKILLS TRAINING

PFST focuses on important child, parent, parent–child interaction and family target areas (Foote, Eyberg, & Schuhmann, 1996; Kazdin, 1997a; McMahon, Slough, & Conduct Problems Prevention Research Group, 1996; Taylor & Biglan, 1998). The first target is reducing children's overt aggression, conduct problems, and noncompliance. The second target is changing problematic parent behaviors such as inadvertent reinforcement of negative child behavior, frequent and ineffective commands, harsh and inconsistent discipline, poor monitoring, and inattentiveness to positive child behavior. The third target is improving the emotional bond between child and parent. The fourth target is dealing with the parent's personal problems (e.g., mental health, relational, financial, social, community difficulties) that cause stress for the parent and interfere with optimal parenting. The final target is improving the way family members communicate with one another and solve family problems. PFST protocols attempt to improve some or all of these target areas simultaneously. Once they are improved, the child will likely exhibit enhanced development in multiple domains of functioning.

Many specific interventions have been developed to effect change in the target areas just reviewed (Barkley, 1997; Foote et al., 1996; Forehand & McMahon, 1981; Kazdin, 1996a; McMahon et al., 1996; Patterson, Reid, Jones, & Conger, 1975; Webster-Stratton, 1996b). They can be grouped under two broad categories of PFST intervention. The first intervention category is parent training in behavioral child management strategies designed to strengthen positive behaviors and reduce negative behaviors in children. In many parent training protocols a portion of the intervention is devoted to teaching the parent how to be more reinforcing to the child and improving the parent–child bond by encouraging the parent to play with the child and give the child more noncontingent attention. The second intervention category focuses on the parents' personal problems and other family issues. Parents are trained in stress management and marital (relationship) skills, and also assisted in obtaining practical help. Family interactions are also improved by teaching communication and problem-solving skills to family members. Most PFST interventions incorporate both of these broad intervention categories.

PFST is very effective in bringing about change in child, parent, and family functioning when applied to children with ACP. We assume the reader would find it cumbersome to wade through the hundreds of studies that have evaluated PFST. Therefore we rely here on the narrative reviews of the literature that were conducted by Kazdin (1997a) and Taylor and Biglan (1998). Most of the studies reviewed by these authors focused on parent training to change children's behavior. These reviews indicate that children whose parents participated in PFST do improve, as evidenced by parent and teacher ratings and by direct observation of their behavior. Often "clinical significance" is achieved because children's behavior is brought to within normative limits. Researchers have documented maintenance of intervention gains for 1–3 years, and, in some instances, for up to 10–14 years. Children below age 6 years obtained slightly better outcomes with PFST than children who were 6 to 12 years old. Researchers have also found that siblings and parents are better adjusted after PFST. Direct observations have demonstrated that parent–child interactions improved. Kazdin found that more treatment sessions related to better outcome. He reported that some PFST protocols involve up to 50–60 hours of intervention. Both reviews noted that PFST has faired well when compared to alternate treatment programs (e.g., client-centered therapy). The reviewers observed that the more severe the child's and the family's problems, the lower the treatment efficacy.

As part of the American Psychological Association's efforts to document effective treatments for children, Brestan and Eyberg (1998) reviewed the intervention literature for children with ODD and CD. They evaluated interventions according to certain criteria to determine which interventions were "well-established" (similar to proven) or "probably efficacious" (similar to promising) (see Lonigan et al., 1998, for a discussion of the criteria). Brestan and Eyberg found that parent training programs based on Patterson and Gullion's (1968) *Living with Children* manual and Webster-Stratton's (1984, 1990b, 1994) video-modeling series were well-established interventions. In addition, those parent training models based on Hanf's (1969, cited in Brestan & Eyberg, 1998) two-stage behavioral intervention (i.e., parent–child relationship enhancement and child management) were probably efficacious (e.g., Eyberg, Boggs, & Algina, 1995; Hamilton & MacQuiddy, 1984; McNeil, Eyberg, Eisenstadt, Newcomb, & Funderburk, 1991; Peed, Roberts, & Forehand, 1977; Wells & Egan, 1988; Zangwill, 1983). Practitioners can be confident when employing PFST methods and strategies that draw upon these intervention models.

Serketich and Dumas (1996) conducted a meta-analysis of PFST for preschool- and school-age children. They selected 26 controlled studies that included adequate description of the intervention, demonstrated sound measurement, and employed rigorous scientific methodology. Most of the studies reviewed were evaluations of parent training. Across the 26 studies, the average age of the child was 6 years, the average number of sessions was 9.5, and 33% of the subjects had single parents. Although the outcome measures used across the studies varied, the authors collapsed them into broad categories of child adjustment and parent adjustment. The meta-analysis revealed that both children and parents benefited from PFST. Children whose parents participated in PFST exhibited a better outcome (e.g., reduced aggression/conduct problems) than 81% of children who received alternative or no treatments. There was a slightly lower rate of improvement for child functioning at school than at home. The parents who completed PFST were also better adjusted themselves (e.g., they had reduced stress, a higher sense of parental efficacy) than 67% of the parents who received alternative or no treatments. Clinical significance, where the scores on outcome measure fell within the normal range after intervention, was achieved for a majority of children. Only a few studies evaluated the long-term benefits of the behavioral parent training, but those that did demonstrated durable intervention effects.

Two factors have prompted practitioners to expand PFST beyond the traditional emphasis on the child's behavior and parent–child interaction. The first factor is that less favorable outcomes and higher dropout rates occur with severe multiproblem families (Kazdin, 1996b; McMahon & Forehand, 1984; Miller & Prinz, 1990; Patterson & Fleischman, 1979; Webster-Stratton & Hammond, 1990). The second factor is that even when the parent training is successfully completed, up to 38% of the time involved in the intervention is spent dealing with parental personal problems, marital problems, family crises, and so on (Patterson & Chamberlain, 1988). PFST practitioners recognized the need to deal directly with additional parent/family problems and contextual difficulties (as documented in Chapter 2) to enhance the overall impact of the intervention.

Several recent studies have shown that broader focused PFST that provides parent training and intervenes with parent's personal and familywide problems are effective. Webster-Stratton (1996b) described the BASIC and ADVANCE parent training programs. The BASIC program is parent training to improve children's behavior and parent–child interactions. The ADVANCE program promotes parent's social support and self-care, personal self-control, and marital/family interaction skills, and also presents strategies to assist children in problem solving. Webster-Stratton (1994) compared families of children with ACP who received only BASIC to those who received combined BASIC and ADVANCE. She found that children in both groups were comparable in improvements, but families in the combined group showed additional benefits in the realms of marital communication, parents' problem solving, children's problem solving, consumer satisfaction, and lower dropout rates. Sanders and McFarland (2000) examined the effects of Behavioral Family Intervention versus Cognitive Behavioral Family Intervention in treating families of children with ACP. The Cognitive Behavioral Family Intervention included the Behavioral Family Intervention's focus on child management training, but also added parent cognitive therapy components, including monitoring and managing mood, scheduling pleasant events, relaxation, cognitive restructuring, and stress coping. Sanders and McFarland found that both interventions improved children's behavior and reduced mother's depression at immediate posttest. The Cognitive Behavioral Family Intervention, however, maintained child behavior and maternal mood improvements at a higher level than did the Behavioral Family Intervention at a 6-month follow-up assessment. Finally, Sanders, Markie-Dadds, Tully, and Bor (2000) compared self-help PFST, standard therapist-led PFST, and enhanced therapist-led PFST interventions for preschool children who exhibited early-onset ACP. All three conditions provided parent training to reduce child behavior problems based on the Triple P—Positive Parenting Program model. The enhanced condition, however, also incorporated partner support (e.g., communication skills, partner supportive statements, problem solving) and coping skills for personal problems (e.g., cognitive therapy for depression, anger, and stress). All three intervention conditions were compared to a wait-list control condition. Sanders et al. found that the enhanced PFST model produced the most reliable improvement on dimensions of child functioning and parenting competence at posttest and 1-year follow-up assessments. Taken together, these studies demonstrated the utility of broader models of PFST that intervene with family adversity factors.

Like with SCT, we observe a limitation in PFST as it relates to intervening with children manifesting different subtypes of ACP. Most of the PFST programs were designed for overtly aggressive and defiant children. There are few specific PFST interventions for children with other ACP subtypes. Moreover, existing interventions have rarely been evaluated for their effects on children who display different forms of ACP (e.g., relational aggression, reactive aggression). Therefore research is needed to evaluate the usefulness of PFST with different ACP subtypes.

In summary, PFST is an effective intervention for children with ACP and their families. PFST that incorporates parent training and addresses broader parent personal and familywide problems is the most effective. PFST brings about clinically significant changes that generalize to other settings/persons and that are maintained over time. In our opinion, PFST is mandatory when providing interventions to children with ACP because of the clear role parent and family factors have in the escalation of their problems and because of the effectiveness of PFST.

BEST PRACTICE MODELS FOR PARENT AND FAMILY SKILLS TRAINING

We reviewed six PFST program models that focus on preschool- and school-age children with ACP to derive best practices. Each of these PFST programs has been extensively studied and has been shown to be effective (see citations below for details). What follows is an integration of techniques and strategies used in these models. The six PFST models are (1) Patterson and colleagues' Parent Training program (Forgatch, 1991; Patterson, 1975a, 1975b; Patterson, Cobb, & Ray, 1973; Patterson et al., 1975); (2) Forehand and McMahon's Helping the Non-Compliant Child program (Forehand & McMahon, 1981; McMahon & Forehand, 1984; McMahon et al., 1996); (3) Webster-Stratton's Video Modeling Parent Training program (also known as The Incredible Years program) (Webster-Stratton, 1992, 1996b); (4) Eyberg and colleagues' Parent–Child Interaction Therapy (Eyberg et al., 1995; Eyberg & Boggs, 1998); (5) Barkley's Defiant Child Training program (Anastopoulos, Shelton, DuPaul, & Guevremont, 1993; Anastopoulos, Smith, & Wien, 1998; Barkley, 1997; Barkley & Benton, 1998); and (6) Sanders and colleagues' Triple P—Positive Parenting Program (Sanders, 1999; Sanders et al., 2000). In the remainder of this chapter we present best practices of PFST from these models. We will also periodically review Braswell and Bloomquist's practice model for PFST to elaborate standard procedures (Bloomquist, 1996; Braswell & Bloomquist, 1991).

BEST PRACTICE DELIVERY PROCEDURES FOR PARENT AND FAMILY SKILLS

Delivery of skills training pertains to how the practitioner presents the PFST intervention to the family. It has to do with the methods the practitioner employs during the intervention to teach parents and family members new skills. We discuss the content of the PFST intervention later in this chapter.

Practitioner Characteristics

Successful PFST practitioners possess certain characteristics that enable them to be effective. Alexander, Barton, Schiavo, and Parsons (1976) found that successful practitioners employing PFST with adolescents and their families were able to establish good relationships with families (e.g., through communication, humor, empathy, acceptance) and were structured (e.g., directive, focused, active) in teaching skills. Patterson and Fortgatch (1985) determined that effective practitioners avoid teaching or confronting "resistant" parents, and instead offer support, ask questions, and engage those parents in discussion. Effective practitioners engage the family in dialogue to lead them to discover what they should work on and to assist them in reaching their goals (Braswell & Bloomquist, 1991).

The model PFST programs incorporate extensive training of practitioners to conduct the interventions. They are trained in relationship building and in behavioral methods of skills training delivery (to be discussed later). Often practitioners follow a manual to assist them in standardized delivery of PFST. For example, practitioners using Webster-Stratton's (1996b) successful PFST program follow a manual that informs them about what to do during each session. Rigorous training of practitioners and the use of standardized manuals ensures that a quality PFST intervention will be administered to families.

Practitioners do not necessarily need to be highly credentialed individuals to be successful. Success follows when practitioners are experienced in working with people, show commitment to their work, are properly trained, and follow best practice procedures. Ongoing supervision of less experienced practitioners by more experienced ones is also important for successful interventions.

Training Methods

Specific PFST-related skills are taught to parents and family members through instruction, modeling, role-play rehearsal, and practice. The practitioner observes the parents performing the new skills and then gives them feedback regarding their progress. A skill is introduced in one session (e.g., attending to prosocial behavior), homework is assigned regarding that specific skill, and the parent practices it until mastery has been achieved. The rate at which parents achieve skill acquisition will vary. Practitioners should emphasize mastery of skills rather than a set number of sessions or hours.

PFST can be delivered through individual or group training formats. Individual and group training have been found to be equally effective, but the group format is more cost-effective (Webster-Stratton, 1984). Typically, a group of 8–10 parents meets with one or two practitioners. Webster-Stratton's (1996b) Video Modeling Parent Training program is a good example of group training. Webster-Stratton produced over 250 video vignettes and an accompanying manual for her BASIC parenting skills program. The vignettes show both positive and negative examples of parenting behavior. The practitioner shows the vignettes to the parents and then asks them specific questions regarding the vignettes. The vignettes serve as a springboard for group discussion and role play. These techniques allow parents to give each other ideas and support, and also provide practitioners with an opportunity to collaborate with parents. Video modeling/discussion formats of intervention have been found to be superior to alternative conditions in overall treatment effects, in maintenance of effects, and in achieving parent satisfaction with the intervention (Webster-Stratton, 1990b; Webster-Stratton, Kolpacoff, & Hollinsworth, 1988).

The individual format for parent training is similar in many respects, but the support that group members provide each other cannot be replicated. There are advantages, however, to individual training. The practitioner is allowed to pinpoint exactly what skills should be worked on with a particular parent or family member. A common procedure for individual training involves use of a one-way mirror and a "bug-in-the ear" device (Eyberg & Boggs, 1998; Forehand & McMahon, 1981). While the parent(s) and child interact together in a training room, the practitioner observes the interaction through a one-way mirror. The practitioner coaches the parent by providing feedback and instruction through the bug-in-the-ear device. Another procedure that can be used with individual families is in-home delivery of PFST. This has the obvious advantage of bringing the intervention directly to the family in their natural environment. This enables the practitioner to see the "real" context within which families operate and cuts down on missed appointments.

Number of Sessions

The number of training sessions employed is different across PFST protocols. They vary depending on the goals of the program and the characteristics of the families being served. Serketich and Dumas (1996) found PFST is delivered an average of 9.5 hours (across 26 studies). There is variation, however, across specific intervention protocols. Sanders and colleagues (2000), for example, delivered the Triple P—Positive Parenting Program over 10–14 1-hour sessions. Webster-Stratton (1996b) stated that it takes 13–14 2-hour sessions to go through the BASIC program, and an additional 14 2-hour sessions to complete the ADVANCE program. In Kazdin's (1997a) review, more sessions are related to better outcomes. He suggested it may take up to 50–60 hours of intervention with some families.

It is important to use as many sessions as necessary for parents and family members to achieve mastery of content. More sessions will be needed as the program content expands or as the level of adversity in participants increases. Vitaro and Tremblay (1994), for example, conducted a parent-training program that called for adjusting the number of PFST sessions each family received according to each family's needs and progress in achieving mastery. Families in the Vitaro and Tremblay study received up to 46 sessions, with an average of 17.4 sessions.

We find it somewhat confusing to sort through different suggestions regarding the number of sessions for PFST. As we review this information, and reflect on our own experience, it is our opinion that approximately 10–18 sessions are necessary to conduct PFST with most families. We agree with Vitaro and Tremblay; the exact number of sessions should be adjusted to fit the needs of each family. Therefore it is conceivable that the number of sessions could be more or less depending on the strengths and needs of a given family. In addition, follow-up sessions will be needed after initial training to monitor a family's progress and deliver booster or additional interventions as indicated.

The number of sessions to teach a specific skill will also vary for each family receiving PFST. Experience indicates that it takes three to six sessions to teach parents or family members a specific content skill. For example, in teaching how to deal with noncompliant behavior in children, the practitioner might use four sessions to teach parents the procedures for avoiding power struggles and using time-out. Several more sessions may be needed to monitor progress in the implementation of the new skills and to make adjustments in the procedures as needed. The goal is for the parent and/or family members to master the new skill. Practitioners need to use as many sessions as necessary to accomplish this goal.

Promoting Generalization and Maintenance

The ultimate goal is for parents and family members to use the new skills they are learning at home and over time. PFST calls for the use of procedures that increase the likelihood of generalization and maintenance of skills training. Graduated training tasks and homework can be used to enhance generalization. First, the parent learns a skill (e.g., using time-out) and demonstrates mastery of it in the intervention setting. Next, the parent is given homework assignments to utilize the new skill at home. PFST practitioners often give the parents charts, handouts, or even manuals/books to assist them with this transfer. For example, books written by Webster-Stratton (1992), Patterson (1975a, 1976), and Bloomquist (1996) provide parents with information and ideas on how to use PFST-related skills to deal with a variety of children's behavior problems at home. Finally, once the parent has gained proficiency in using a new skill at home, he or she is ready to start employing it in the community. The practitioner and parent strategize to set up procedures for employing new parenting skills in other settings (e.g., a store, the park, grandmother's home).

PFST practitioners employ review, follow-up assessment, and booster sessions to ensure that the intervention will have lasting effects. This is necessary because skill development is difficult and there is always a risk of relapse. Review consists of discussing/modeling/role-playing a skill after some time has elapsed. This affords the practitioner an opportunity to see if a parent still understands and can use the skill. Follow-up assessment usually entails observing parent–child interactions. This gives the practitioner evidence about whether or not previous intervention gains were maintained. Booster sessions can be scheduled periodically—for example, monthly or as needed. The previously learned skills are reviewed in booster sessions.

Summary

Table 5.1 summarizes the best practices for delivering PFST. We recommend that these delivery procedures be followed to ensure that the PFST program is effectively provided to families.

TABLE 5.1. Summary of Best Practice Delivery Procedures for Parent and Family Skills Training

Delivery procedures	Best practices
Practitioner characteristics	Establish relationships, provide structure, lead parents to discover new skills, follow standardized protocols.
Training methods	Use instruction, modeling (including video modeling), role plays, practice, feedback, reinforcement, discussion, and homework; interventions can be delivered in small groups or with individual families.
Number of sessions	Approximately 10 to 18 sessions are utilized, although the number of sessions should be adjusted to allow for mastery of content; typically three to six sessions are needed to teach families one of the content skills.
Promoting generalization and maintenance	Use graduated training tasks, books that describe procedures, and charts to assist in homework exercises; use follow-up booster sessions.

BEST PRACTICE TRAINING CONTENT AREAS FOR PARENT AND FAMILY SKILLS TRAINING

In this section we review the content of PFST interventions from the various best practice models. Training content is what families learn as a result of participating in PFST. The practitioner picks and chooses which skills are most relevant to a particular family or group of families.

Understanding Social Learning Principles

Many child management-focused PFST protocols begin by educating parents about the social learning theoretical principles on which child management strategies are based (Forehand & McMahon, 1981; Patterson et al., 1993). Miller and Prinz (1990) summarized the social learning principles that parents are taught as follows:

1. The need to pinpoint and accurately label child behavior.
2. The necessity of refocusing parental attention away from the child's behavior problems to the child's positive and prosocial behavior.
3. The importance of tracking specific child behaviors on a daily basis.
4. How prosocial child behavior is increased by tangible and social reinforcements.
5. How aggressive/defiant behavior is reduced by effective discipline techniques.
6. The importance of effective commands and communication.

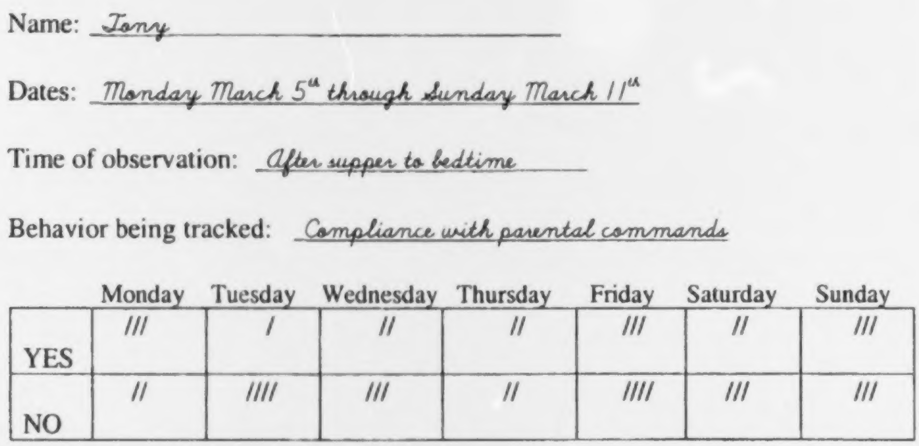
7. The utility of anticipating and solving ongoing parenting problems that emerge.

An example of this procedure is Patterson's two parent books, which are often utilized to convey social learning theory information and child management strategies to parents. Parents are often given copies of either *Living with Children* (Patterson, 1976) or *Families* (Patterson, 1975a) to convey this information prior to or during intervention. Parents must read the book and then demonstrate to the practitioner that they understand and have mastered the principles of social learning theory.

Observing and Tracking Child Behavior

The parent is taught to pinpoint and track specific child behaviors. Each behavior is carefully defined, observed, and recorded over time. For example, compliance with parental commands is defined as the child "listening and obeying the parent when told to do something." Initially, a baseline is established by counting the frequency of the specified behavior (e.g., the number of times the child complies with parental commands) during a specified time interval (e.g., evenings for 1 week). An intervention is then conducted (specific interventions are described below), and its effects are observed through ongoing tracking of child behavior. Different types of compliant and prosocial behavior can be observed and tracked. The targeted positive behavior should increase as a function of the intervention.

Figure 5.1 provides an example of a tracking chart. In this example the child's compliance with parental commands is tallied during the evening



Name: Tony

Dates: Monday March 5th through Sunday March 11th

Time of observation: After supper to bedtime

Behavior being tracked: Compliance with parental commands

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
YES	///	/	//	//	///	//	///
NO	//	////	///	//	////	///	///

FIGURE 5.1. Child behavior tracking.

hours. A similar procedure could be used to track different behaviors at different times.

Encouraging Child-Directed Interaction and Play

Child-directed interaction and play enhances parent–child relationships, makes the parent more reinforcing to the child, and shapes the child's prosocial behaviors. To accomplish this, parents and children are instructed to engage in play or "special time" activities. These activities include those that allow for back-and-forth interaction such as playing with cars or dolls, building something, baking or cooking, or playing catch. Watching television or playing a board game would not be conducive to reciprocal interaction. Parents are instructed to allow the child to choose the activity and set the pace for play. The parent is to give attention to positive, neutral, and prosocial child behavior, while deemphasizing attention to negative child behavior, during the child-directed activities.

Parents are instructed to *increase play-facilitating behaviors* such as the following:

1. Praising—verbally reinforcing the child during the activity.
    - "That looks good."
    - "You're doing a good job."
    - "Good boy [girl]!"
    - "It looks great!"
2. Describing—commenting on what the child is doing and how the child might be feeling.
    - "You put the car in the garage."
    - "You caught the ball!"
    - "You look happy [sad, angry, scared]."
    - "It looks like you're thinking."
3. Touching—appropriately touching the child during the activity.
    - Hugs
    - Kisses
    - Pats on the shoulder

Parents are also instructed to *decrease play-detracting behaviors* such as the following:

1. Questions—asking the child unnecessary questions during the activity.
    - "Why did you put the car in the garage?"
    - "Do you want to play this game?"
    - "Why are you so mad?"
2. Commands—telling the child what to do during the activity.

  - "Put all the cars in the garage."
  - "Throw me the ball."
  - "You be the cowboy and I'll be the horse."
3. Criticism—negatively evaluating the child's behavior during the activity.
  - "That doesn't look right."
  - "Try harder."
  - "It doesn't go that way."

The frequency of the parent's behavior is sometimes counted in session by the practitioner or by another observer. A criterion is established for the amount of behaviors that are to be emitted by the parent during a certain interval. For example, in Parent–Child Interaction Therapy (Eyberg & Boggs, 1998), the parent is observed for 5 minutes while interacting with the child during child-directed activities. The parent is coached to emit up to 35 positive behaviors. The parent is also asked to emit three or fewer negative behaviors. Once the two criteria are met, the parent can move on to other training content.

Webster-Stratton's (1996b) program helps parents to understand the importance of play in children's development. They are educated about the benefits of play for enhancing cognitive and language development, imagination, and self-esteem in children. Parents are encouraged to play with their children and follow their lead during play activities.

Some debate exists about the timing of child-directed interactions and play in the intervention process. Forehand and McMahon (1981) argued that parents need to master child-directed activities before moving on to other parent training content. This argument is based on the assumption that parents need to establish a more positive tone in the parent–child relationship before applying discipline strategies. One study, however, found that training parents in child behavior management skills before training them in child-directed activities was associated with more improved child behavior and greater parental satisfaction than training in child-directed activities before discipline techniques (Eisenstadt, Eyberg, McNeil, Newcomb, & Funderburk, 1993). In practice it may be helpful to collaborate with parents and ask them what they would like to learn first.

Shaping Positive Behavior with Positive Attention and Reinforcement

PFST emphasizes "catching them being good" to help children increase compliant and prosocial behaviors. Parents are trained to pay attention to their children and praise them for these positive behaviors. First, the parent has to learn how to track the behavior and "see" it better (see "Observing and Tracking Child Behavior," above). When the child manifests the behavior, the parent is taught to give labeled praise that specifies what the child did and communicates the parent's satisfaction (e.g., "I like it when you share crayons with your sister").

Parents are also taught to administer tangible reinforcement to children for displaying specific behaviors. Sometimes this effort is orchestrated by using a behavior chart. Figure 5.2 displays an example of a daily child behavior chart. To use this chart, the desired child behavior is specified (e.g., Up and dressed by 7:00 A.M.), the behavior is tracked, and reinforcement is administered according to the child's behavior. Charts can be useful to "jump-start" behaviors, but they should be gradually faded out. Eventually, the desired behaviors should be maintained by using praise as described in the preceding paragraph.

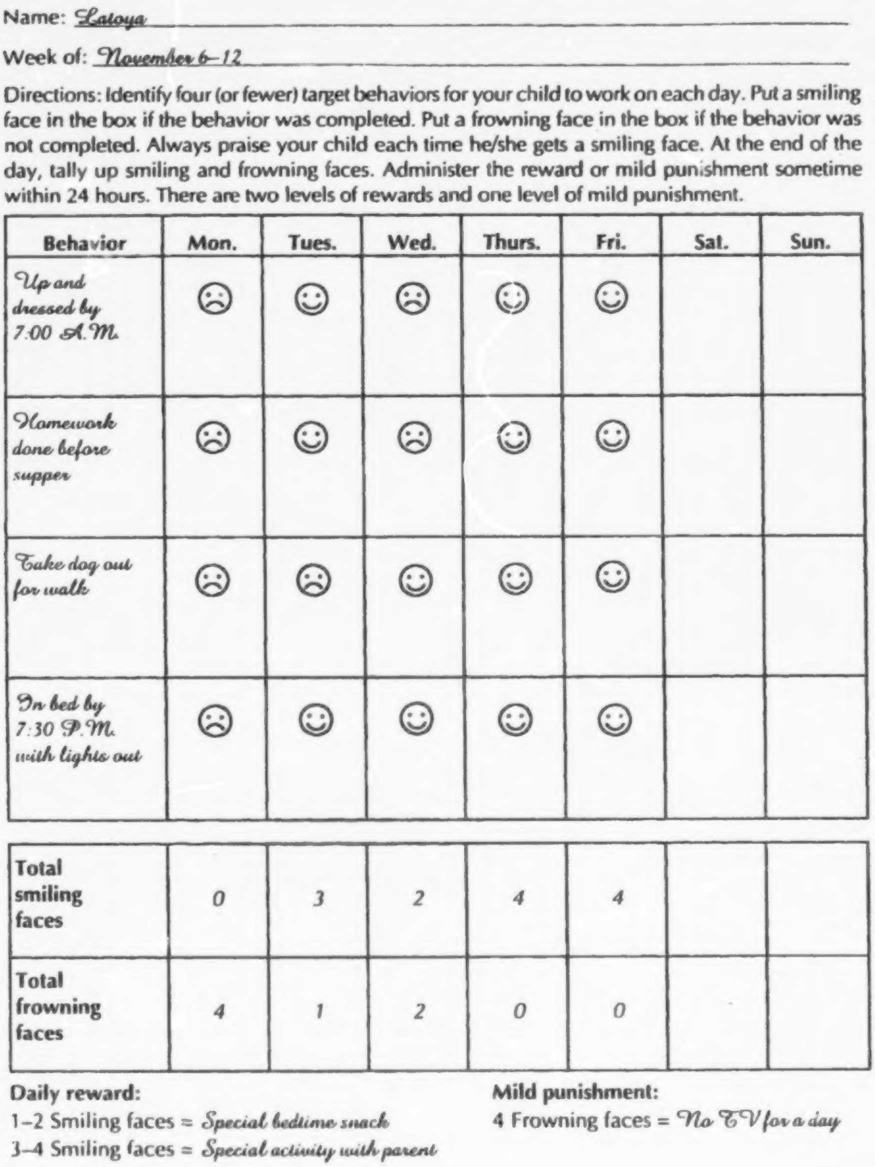
Ignoring Mild Negative Behavior

Milder behavior problems such as whining, arguing, swearing, and protesting can be reduced with planned ignoring. Parents are trained to ignore these behaviors. When the child manifests these behaviors, the parent avoids verbal reinforcement (e.g., "Knock it off"), physical reinforcement (e.g., making annoyed eye contact), and physical proximity to the child. Instead, the parent remains quiet and physically removed from the child. Once the child's behavior has improved, the parent again attends to the child. The parent systematically selects certain behaviors that he or she would like to ignore in his or her child.

Defusing Power Struggles and Deescalating Parent–Child Conflict

Most PFST programs teach the parent how to defuse power struggles and deescalate conflicts that can emerge when trying to discipline or gain the compliance of a child with ACP. Parents need to be educated so they understand that their response to the child's problematic behavior can make the child increasingly angry and aggressive. In a worst-case scenario this could escalate to a physical confrontation between parent and child. To be successful, parents must learn to provide discipline in a firm and calm manner in order to defuse potentially volatile situations with their child.

One strategy is to train parents in stress management skills so they can "stay cool" (i.e., manage their own stress, frustration, and anger) when their child exhibits noncompliant and/or problematic behaviors. Stress management procedures are especially important to review with parents who have a history of overreacting and thereby escalating their child's behavior. Parents are taught stress management techniques through education, modeling, role playing, and fulfilling assignments. Four procedures are commonly used to teach stress management skills to parents:



Name: Latoya

Week of: November 6–12

Directions: Identify four (or fewer) target behaviors for your child to work on each day. Put a smiling face in the box if the behavior was completed. Put a frowning face in the box if the behavior was not completed. Always praise your child each time he/she gets a smiling face. At the end of the day, tally up smiling and frowning faces. Administer the reward or mild punishment sometime within 24 hours. There are two levels of rewards and one level of mild punishment.

Behavior	**Mon.**	**Tues.**	**Wed.**	**Thurs.**	**Fri.**	**Sat.**	**Sun.**
Up and dressed by 7:00 A.M.	☹	☺	☹	☺	☺		
Homework done before supper	☹	☺	☹	☺	☺		
Take dog out for walk	☹	☹	☺	☺	☺		
In bed by 7:30 P.M. with lights out	☹	☺	☺	☺	☺		

Total smiling faces	0	3	2	4	4		
Total frowning faces	4	1	2	0	0		

Daily reward:
1–2 Smiling faces = Special bedtime snack
3–4 Smiling faces = Special activity with parent

Mild punishment:
4 Frowning faces = No TV for a day

FIGURE 5.2. Daily Child Behavior Chart. From Bloomquist (1996). Copyright 1996 by The Guilford Press. Reprinted by permission.

1. Teach parents to recognize stress and to be aware of stress "signals"—parents are instructed to recognize the "body signals" (e.g., accelerated breathing/heart rate, tense muscles, feeling hot), the "thought signals" (e.g., "That brat!"; "I can't handle this!"; "I give up") and the "action signals" (e.g., yelling, hitting, crying, withdrawing) associated with stress.

2. Teach parents to use relaxation strategies—parents are instructed to take slow deep breaths, to tense and release their muscles, and to count to 10.
3. Teach parents to use "coping self-talk"—parents are instructed to think self-statements such as "Take it easy," "I can handle this," "Stay cool," and "I'll try my best."
4. Teach parents to take effective action—parents are instructed to walk away, ignore it, express feelings, and solve the problem.

Once parents have learned to remain calm, they can then employ other strategies to gain their children's compliance and/or reduce other behavior problems.

The parent can also be trained to recognize different stages in the escalation process and employ commonsense strategies to deescalate the situation. Through discussion with the practitioner, the parent can learn to pinpoint the "triggers" or situations that commonly "set off" their child. The practitioner and parent can then strategize about different ways to proactively manage those situations instead of merely reacting to them. For example, if being told to do homework routinely sparks an angry response from the child, the parent could warn him or her every 5 minutes for 15 minutes prior to giving the command to do homework. The parent can also learn to reassure the child that they can work out their problems and firmly insist that the child calm down. It may be useful to discuss safety concerns that need to be considered when the child does spiral out of control. This may entail the parent physically removing others from the child or restraining him or her. The parent will also need to supervise the child once he or she has begun to calm down to avoid a recycling of the angry and explosive behaviors. See Table 9.3 in Chapter 9 for an elaboration of similar procedures that teachers can use to reduce escalating child behavior in schools.

Using Time-Out/Removal of Privileges for Noncompliance

All the PFST models incorporate time-out and removal of privileges as a way of enabling parents to improve the way they respond to their child's noncompliant behaviors. Eyberg and Boggs (1998) characterized this part of the training as "parent-directed interaction" in that the parent takes the lead to decrease noncompliant and angry behavior. All PFST models work with the parent to achieve control of the child first in the training situation and then in home and community settings.

The first step is educating parents to accurately define noncompliant behavior. Most PFST programs suggest that noncompliance occurs when a child resists or refuses to follow a parental command. The three most typical forms of noncompliance are the following:

1. Overt noncompliance—the child refuses to physically perform the task.
2. Bargaining—the child verbally tries to rationalize and/or strike up a "deal" with the parent and does not physically perform the task.
3. Resistance—the child complains and half-heartedly performs the task.

Parents learn that they need to take effective action (described below) when their child displays these forms of noncompliance.

In the second step parents are taught to improve how they give commands to their children. Parents are educated about a variety of *ineffective commands* including the following:

1. Vague command—telling the child about what is expected in a nonspecific manner (e.g., "Shape up"; "Knock it off").
2. Question command—giving a command in the form of a question (e.g., "Would you please brush your teeth?").
3. Rationale command—explaining the parent's reasons for why the child needs to follow the command (e.g., "You need to brush your teeth now because if you don't you'll have bad breath when you go to school and someday you'll get cavities.").
4. Multiple or chain commands—instructing the child to follow many commands simultaneously (e.g., "Turn off the TV, pick up the toys in this room, wash your hands, and then come to dinner.").
5. Frequent commands—repeating the same command (e.g., "Pick up the toys."; Come on, pick up the toys."; "I told you to pick up the toys!"; "PICK UP THOSE TOYS!").

To promote awareness, parents are instructed to self-evaluate. They also receive feedback from the practitioner about commands that are typical for them. Parents are told that these commands do not work in situations where the child's compliance is needed.

The parents are taught to use *effective commands* including the following:

1. Specific, one-step command—explicitly stating a directive in approximately 10 words (e.g., "Go to your room now."; "Take the dishes off the table and put them on the counter."; "Turn off the light.").
2. When–then command—telling the child that he or she can engage in a desired activity when a task is completed (e.g., "When your homework is completed, then you can go outside.").

If the child complies with the effective command, the parent provides labeled praise and attention to reinforce this behavior.

During the third step parents are taught to use warnings if the child remains noncompliant with an effective command. Parents are instructed to stay calm and give a warning in the form of an "if–then" statement. For example, with a child who refuses to pick up toys, the parent states: "*If* you don't pick up the toys and put them on the shelf, *then* you will have to go to the time-out chair." The parent states the warning only once. If the child complies with the warning, the parent administers labeled praise and attention for compliance. If the child does not comply with the warning, he or she is put in the time-out chair.

The fourth step involves the parent learning to put the child in a time-out chair for noncompliance with the warning. In a calm manner, the parent escorts the child to a time-out chair. The chair should be somewhere in the house that is free from distractions and also allows the parent to monitor the child from a distance. If the child refuses to cooperate with sitting in a chair, a warning is given that a backup procedure will be used if the child does not sit on the chair (e.g., spanking, holding the child in the chair, removing other privileges). For example, if a child refuses to comply with going to time-out, the parent states: "You will not be allowed to watch TV again until you go to time-out." If the child does not go to time-out, the backup procedure is administered until he or she goes to time-out. The command–warning–time-out (with backup procedure) sequence is repeated until the child eventually complies with the original command.

The backup procedure used for refusing to sit in a chair can become complicated and for that reason is sometimes resisted by parents. Eyberg and Boggs (1998) advised that parents should be given choices to use backup procedures that fit their unique beliefs or needs. Nonviolent and nonangry spanking (e.g., two swats on the buttocks) is recommended for some parents. Other parents are instructed to hold the child in the chair for 1 minute until the child sits quietly in the chair for at least 5 seconds. The practitioner should discuss with parents what they believe will be the most effective backup procedure.

The amount of time the child is required to sit in the time-out chair varies according to different PFST protocols. Eyberg and Boggs (1998) recommended that preschool children spend at least 3 minutes in the time-out chair, and that they be required to sit quiet for the last 5 seconds before being released. Barkley (1997) recommended that a child be given 1 or 2 minutes of time-out for each year of the child's age, with 2 minutes per year of age being reserved for more serious behavioral infractions.

The fifth step has to do with teaching the parent to use time-out in public settings. Initially, the parent is instructed to use time-out only at home. Once the parent is convinced that the procedure is going well at home, then the parent is encouraged to employ it in community settings. This involves the parent thinking very quickly when noncompliance occurs in public settings, and then determining the likely spot where time-out could be administered. The place should be free from distractions and potential reinforcement (e.g., a corner in a store).

The time-out procedure can be *modified somewhat for older elementary school-age children*. The sequence of events as described above would be similar for older children, although taking an older child to a time-out chair might not be age-appropriate. In this case, removal of privileges would be utilized (e.g., taking away a bike, computer time, or outside privileges). For example, if a parent wanted a 12-year-old child to turn off the TV, the parent would give an effective command, followed by a warning (if necessary), and then take away a privilege, such as a video game, for 24 hours (if necessary).

Practitioners need to work with parents so they understand that the privileges taken from the child do not need to be severe or extensive (e.g., "You're grounded for a month!"). In most instances, the older elementary-age child will learn to obey if a simple privilege is removed until the child complies or for 24 hours. A good frame of reference is to tell parents that the purpose of discipline is to "teach the child a lesson," not to "punish the child." Therefore the parent need not administer a harsh consequence.

Using Standing or House Rules for Behavior

"Standing rules" or "house rules" is used to describe what the parent expects the child to do on an ongoing basis without having to be told or reminded. These rules are designed to reduce aggressive and/or covert antisocial behaviors such as hitting, destroying property, teasing, or stealing, and to increase positive behaviors such as homework, chores, and brushing teeth. Parents are instructed to inform their child of the rules (e.g., "no hitting" or "homework before TV"). It is helpful to write down the rules and post them for all to see.

The child is informed that if he or she violates a rule, he or she will be taken directly to time-out or will lose a privilege. In essence, the rule serves as the warning for the child. Therefore, no additional verbal warning is needed. When the child violates the rule (e.g., hits a sibling or watches TV before completing homework), the consequence for the rule violation is automatically given.

Using a Token System for Behavior Management

A token system is an intensive intervention designed to modify behaviors of a child. The parent is instructed to define which behaviors he or she would like the child to increase. The parent is then asked to "weight" these behaviors for their importance. After this, the parent assigns values to the behaviors that correspond to the weight of that behavior. These assigned values can be transformed into chips or points that the child can earn for manifesting the behaviors. For example, the child might earn two chips/points for clearing the dishes off the table after dinner, three chips/points for picking up toys in the bedroom, eight chips/points for getting dressed in the morning, or 10 chips/points for doing 15 minutes of homework in the afternoon. It is recommended that chips be used for children ages 4–8 and that points be used for children ages 9–12. The parent should allow opportunity for the child to earn up to 50 chips/points per day with the token system.

Next, the parent has to define specific privileges/rewards that the child can earn for amassing different amounts of chips/points. The parent explains to the child that the chips/points are like money, which can be traded in for special privileges or rewards. For example, a social reward of playing a one-on-one basketball game with a parent might be worth 10 chips/points. A special reward of going to a movie with a parent might be worth 50 chips/points. The rewards do not necessarily have to be "extras." They could be everyday privileges that the child takes for granted. For example, the child is used to riding his bike after school or watching TV on Saturday mornings. These activities are privileges and not rights. The parent could require the child to earn these privileges by accumulating chips/points. It is also useful to obtain the child's input to be sure that rewards are actually reinforcing to the child.

Figure 5.3 from Barkley (2000) summarizes a home chip program for a 6- to 8-year-old child. This example lists specific "jobs" (behaviors) that the child could complete, with corresponding "payment" (chips), "rewards" (privileges), and costs for these rewards.

The parent is instructed to track the specific behaviors targeted and to administer chips/points accordingly. A "bank" (e.g., a box or a can) is utilized for collecting chips earned. A chart is utilized for keeping track of points earned. When the child manifests a specific behavior, the parent verbally acknowledges the behavior and informs the child of the chips/points earned. The parent and child keep track of the amount of chips/points earned and spent.

Barkley (2000) recommended that children be allowed to earn chips/points without losing them during the first week. This provides the child an opportunity to become familiar with the system and enjoy the rewards for good behavior. After about a week, however, the chips/points can also be utilized in a response-cost fashion. That is, in addition to earning chips/points for positive behavior, the child can also lose chips/tokens for negative behavior. Accordingly, if the child manifests noncompliant or aggressive behavior, he or she could receive a warning to stop the behavior or a specified number of chips/points will be taken away. If the behavior persists, then the child would lose the aforementioned number of chips/points. It is recommended, however, that parents give out many more chips/points for positive behavior than take away chips/points for negative behavior.

Job	Payment
Get dressed	5
Wash hands/face	2
Brush teeth	2
Make bed	5
Put dirty clothes away	2
Pick up toys	3
Take dirty dishes to sink after eating	1
Homework (per 15 minutes)	5
Give dog fresh water	1
Take bath/shower	5
Hang up coat	1
No fights with sibling	
Breakfast to lunch	3
Lunch to dinner	3
Dinner to bedtime	3
Uses nice voice with Mom/Dad when asking for something	1
Get pajamas on	3
Come when called	2
Tell the truth when asked about a problem	3
Positive attitude	Bonus

Reward	Cost
Watch television (30 minutes)	4
Play video games (30 minutes)	5
Play outside in yard	2
Ride my bike	2
Use a special toy	4
Go out for fast food	200
Rent a video game or movie	300
Go bowling/miniature golf or roller/ice skating	400
Stay up past bedtime (30 minutes)	50
Have a friend play over	40
Have a friend sleep over	150
Go to a video arcade	300
Get my allowance ($1.00/week)	100
Choose a special dessert	20
Go play at a friend's home	50

FIGURE 5.3. Sample of a home chip program job and privilege list for a 6- to 8-year-old. Barkley (2000) estimated that this child would earn about 50 chips each day for doing just the daily routine tasks on a typical school day. Barkley then made sure that about 30 of these chips would be needed to buy the daily privileges of television (1.5 hours), video games (1 hour), playing outside, riding a bike, and playing with a special toy that Mom and Dad control access to (such as a remote-control car, a racecar set and track, a train set, an army battle station with troops, a doll with clothes and accessories, a personal tape player or CD player, in-line skates, skateboard). The remaining privileges were priced by determining how often the child should have access to that reward—that is, how many days of waiting and saving. From Barkley (2000). Copyright 2000 by The Guilford Press. Reprinted by permission.

The child should always have a positive balance of chips/points each day or he or she will get discouraged and refuse to cooperate.

The token system should be periodically reviewed, at the very least on a weekly basis, to determine its continued effectiveness. Over time, it may be necessary to adjust the target behaviors, chip/point values, and rewards depending on what has transpired. Parents need to make adjustments so that the program will stay exciting and rewarding to the child. Eventually, however, the token program should be faded out and finally discontinued altogether. This occurs when the parent is convinced that the child has made sufficient progress in deportment.

Monitoring and Supervising Children

PFST interventions routinely focus on improving parents' monitoring/supervision skills. Patterson and Forgatch (1987) defined monitoring/supervision as the "4 Ws." These 4 Ws include the parent knowing *w*ho the child is with, *w*here the child is going, *w*hat the child is doing, and *w*hen the child will return home. It also involves knowing the child's friends and their parents, as well as keeping informed about the child's progress at school. Finally, monitoring/supervision has to do with structuring a child's time so that he or she is involved in prosocial activities and does not have too much unstructured free time. Although monitoring takes different forms at different ages in a child's life, there is evidence that this concept is relevant for children of all ages.

Several steps are utilized to train parents in improving monitoring/supervision (Dishion & McMahon, 1998; Patterson & Forgatch, 1987). First, it is essential to motivate the parent to make monitoring/supervision a priority. Typically, the practitioner presents didactic information about the potential impact of poor monitoring/supervision on child development. A discussion of values is also relevant so that the parent is able to see that monitoring/supervision of children is a valued activity in our society. The parent is encouraged to be in charge of his or her child. This is followed by a presentation of commonsense procedures to improve monitoring/supervision such as communication with other parents, talking to the child's friends, being involved at school, and being aware of the child's progress at school. The next step involves delineation of specific rules and expectations. This might include defining a curfew, discussing boundaries concerning where the child can and cannot go in the community, reviewing homework times, and so on. It is important to communicate these rules and expectations to the child and all other adults who are involved in coparenting. Sometimes rules are written down in the form of a "contract." Another technique that can be used by parents is a home–school communication note system (see Chapter 7). This improves the parents' ability to monitor the child's functioning at school.

Intervening with Stealing

Patterson and colleagues (1975) described procedures for intervening with children who steal. Patterson and colleagues utilize the standard parent training protocol that they devised (much of which has been discussed in preceding sections of this chapter) to deal with general child behavior problems and parenting difficulties. Once a family has completed the standardized parenting training protocol, then additional interventions can be put into place for children who frequently steal. Patterson and colleagues state that it is necessary to operationalize stealing. This means defining what it is that the child typically steals and allowing the parent to rely on his or her "gut feeling" to determine whether or not a child has stolen. The parent is not required to have "proof" of the child's stealing behavior (because many children lie when confronted about stealing). The second step involves the parent monitoring the child's stealing behavior. This could include checking the child's room or checking his or her possessions to determine whether specific items have been stolen. Finally, a mild consequence is utilized for every occurrence of the stealing behavior. This might entail grounding, temporary removal of toys from the child, and so on.

Tremblay and Drabman's (1997) protocol is similar to the Patterson and colleagues (1975) intervention, but also incorporates the concepts of apology, restitution, overcorrection, and praise for alternative behaviors. Again, Tremblay and Drabman do not require parents to obtain proof of a child's stealing. Tremblay and Drabman described a five-step procedure. All steps must be complied with by the child. If he or she does not comply with each step, then consequences are put into place until the steps are completed (e.g., losing privileges of watching TV, playing videos, or going outside). The five steps are as follows:

1. Identify instances of stealing—this includes searching the child, observing the child, and monitoring the child's whereabouts and activities to determine whether or not he or she has stolen.
2. Apology—if the child is caught stealing, he or she must confess and apologize to the victim. The parent is required to supervise the apology.
3. Return or replace stolen item—the child is required to return the stolen item at the apology session. If the stolen item is missing, the child must replace it.
4. Restitution plus 100%—in addition to returning or replacing the stolen item, the child must also pay the victim an amount of money equal to the value of the item that was stolen (i.e., its replacement cost). In essence, the child is required both to replace the stolen item and add on this additional payment. If the child is unable to come up with the money for payment, he or she is required to do chores to earn the money.
5. Role reversal—the child is made to relinquish an item identical or similar to the item that was originally stolen (e.g., if the child stole a toy car, he or she would relinquish a toy car). This requires the child to experience the role reversal of what it feels like to have something taken. It also serves the purpose of an additional consequence.

Intervening with Firesetting

Kolko (1996) advised that practitioners fully understand the conditions and risk factors that support firesetting in children so they can be addressed in the intervention. It could be that the child is being exposed to individuals who model firesetting behavior. Perhaps the child lacks knowledge about the consequences of setting fires. It might be that the child exhibits other self-control problems (e.g., anger, reactive aggression, defiance) and/or antisocial behavior. Perhaps parents are providing insufficient monitoring of the child's whereabouts and activities. All these risk factors, if present in a particular child, will need to be addressed in the intervention.

A primary intervention for firesetting is to improve parent monitoring of the child and parent use of standing or house rules. The procedures for monitoring and supervising children were discussed earlier. This is critical for the parents of children who set fires. They need to provide structure and know the whereabouts and activities of their child. In particular, the parent needs to be vigilant in spotting potential incidents of firesetting by the child. In addition, it is important to make sure the child has ample opportunity to be involved in prosocial activities with other children or in the community (see Chapter 10 for a review of community-based programs). The parent should employ a standing rule that the child cannot play with fire or he or she will lose a privilege.

Educational and skills training interventions are also used for children who set fires (Kolko, 1996). Many community fire departments offer educational programs that teach the child about the dangers and consequences of setting fires. Children who set fires also benefit from learning self-control strategies such as problem solving, verbal self-instruction, and social skills (see Chapter 4).

Addressing Parents' Personal and Other Family Problems

Expanded PFST interventions teach parents coping skills, deal with marital/relationship problems, strengthen home–school ties, and promote parents' problem-solving skills to enable them to respond to ongoing personnel and child behavioral challenges. Socioeconomic and community factors are also attended to in broader applications of PFST. For example, it may be necessary to assist the parent or the family in accessing community resources to deal with financial problems or to obtain affordable housing. Most PFST programs address broader parent/family/contextual problems with the families being served.

One strategy is to evaluate the family and make additional referrals as needed. Chapter 3 of this volume discusses assessment procedures. If certain problems are noted in the assessment, then referral to other services would be warranted. For example, it may be determined that the child or a family member has additional problems not addressed in PFST (e.g., mental health problems, marital difficulties, domestic abuse, inadequate child care, lack of after-school activities, housing needs). If problems are identified, then referrals are made to appropriate mental health, marital/family therapy, domestic abuse, and social services agencies.

A second strategy is to teach parents to cope with chronic stress. The idea is to teach parents commonsense strategies to deal with mild to moderate stress levels. This is accomplished through education and discussion. Parents learn to cope with chronic stress by using the following strategies:

1. Relaxation—teach various relaxation procedures.
2. Obtain occasional respite from the children and family—assist parents in scheduling time for themselves and arranging for babysitting.
3. Seek out social support—strategize with parents who feel isolated about different ways that they can seek support from family members and neighbors or attend community events.
4. Schedule pleasant events—encourage parents to schedule specific pleasant events in their daily or weekly schedule (e.g., go for a walk).
5. Develop good health habits—educate parents about the importance of increasing one's exercise level, eating a healthy diet, getting enough rest, and generally taking care of themselves.
6. Join a parents support group—refer parents to support groups for children with ADHD, for grief and loss, for dieting, and so on.

A third strategy is to train parents in cognitive restructuring of upsetting and/or distorted thoughts. Typically, cognitive restructuring is accomplished by identifying "unhelpful" thoughts, understanding the unhelpful nature of these thoughts, and countering these unhelpful thoughts with more "helpful" thoughts. Bloomquist (1996) offered a list of unhelpful parent thoughts and helpful counterthoughts to be utilized in cognitive restructuring exercises with parents. Figure 5.4 displays examples of several unhelpful and helpful thoughts for parents. These example thoughts pertain to attributions, beliefs, and expectations the parent may have about child, self, and who needs to change. Bloomquist has parents determine whether or not these thoughts are typical for them, whether or not these thoughts are helpful, how the unhelpful and helpful thoughts influence their behavior, and how this behavior ultimately effects their child. Most parents are able to identify unhelpful thoughts and learn effective helpful counterthoughts.

A fourth strategy is to teach couples and family members practical skills for dealing with broader family interactions. This is accomplished by teaching parents and family members communication and family problem-solving skills. For example, Bloomquist (1996) provided a list of family communication "Do's" and "Don'ts" (see Figure 5.5 on page 171). Couples and family members are asked to evaluate themselves for the Don'ts that they typically do. Couples or family members then practice the Do's in the session and gradually learn to use the new communication skills in real-

Unhelpful Parent Thoughts

Listed below are a variety of common thoughts that parents of children with behavior problems may have. Read each thought and indicate how frequently that thought (or a similar thought) typically occurs for you over an average week. There are no right or wrong answers to these questions. Use the 5-point rating scale to help you evaluate your thoughts:

1	2	3	4	5
Not at all	Sometimes	Moderately often	All the time	Often

1. _____ My child acts up on purpose.
2. _____ My child is the cause of most of our family problems.
3. _____ It is my fault that my child has problems.
4. _____ It is his/her fault (other parent) that my child is this way.
5. _____ I give up. There is nothing more I can do for my child.
6. _____ I have no control over my child, I have tried everything, and so forth.

For each thought you rated a 3, 4, or 5, ask yourself the following questions:

1. What is unhelpful about this thought?
2. How would this thought influence my behavior toward my child?
3. How would my behavior, which relates to my thought, affect my child?

Helpful "Counter" Thoughts for Parents

Listed below are "counter" thoughts that parents can think instead of unhelpful thoughts. Unhelpful Thought #1 corresponds to Helpful Thought #1 and so on. Compare the unhelpful thoughts to the helpful thoughts.

1. It doesn't matter whose fault it is. What matters are solutions to the problems.
2. It is not just my child; I also play a role in the problem.
3. It is not just my fault; my child also plays a role in the problems.
4. It doesn't help to blame him/her (other parent). We need to work together.
5. I have to parent my child. I have no choice. I need to think of new ways to parent my child.
6. My belief that I have no control over my child might be contributing to the problem. Many things are in my control. I need to figure out what I can do to solve the problem.

Ask yourself the following questions about these helpful thoughts:

1. What is helpful about this thought?
2. How would this thought influence my behavior toward my child?
3. How would my behavior, which relates to my thought, affect my child?

FIGURE 5.4. Example of Unhelpful and Helpful Parent Thoughts. Other thoughts that are specific to a particular parent can be targeted using this procedure. From Bloomquist (1996). Copyright 1996 by The Guilford Press. Adapted by permission.

life family interactions. In addition, through the process of education and practice, family members can learn to solve family problems by going through the following problem-solving steps:

1. "Stop, what is the problem we are having?"
2. "What are some plans we can use?"
3. "What is the best plan we can use?"
4. "Do the plan."
5. "Did the plan work?"

Gradually, couples and family members are trained to employ communication and problem-solving skills at home to deal with ongoing marital and/ or family problems.

Integrating Parent and Family Skills Training

Increasingly practitioners are integrating many of the previously discussed procedures into a comprehensive PFST program. McMahon and colleagues (1996) provided an example of an integrated model of PFST for children with ACP. The parent/family training program is part of their Fast Track Prevention Program that targets young aggressive children who are at risk for developing later significant conduct problems (see Chapter 11 for a discussion of the Fast Track program). McMahon and colleagues' model is a good example of integrating basic PFST content with expanded content.

Parents meet in small groups with two leaders for parent group training. The content of the parent group addresses parenting and broader family issues. First, there is an emphasis on promoting academic competence among children. Parents are taught to monitor their child's academic progress, collaborate with teachers, engage the child in reading and other academic enrichment activities, and work with their child by encouraging homework and general learning development. Teachers are also invited to visit the parent groups occasionally to discuss learning and classroom issues. Next parents learn personal self-control strategies to manage their own anger/frustration/stress. Parents learn to recognize their anger (and other feelings) and then learn how to interrupt the anger process. They learn strategies for calming down, such as counting to 10, taking deep breaths, and taking a break. They reward themselves for staying calm while interacting with their children. The program also focuses on changing the thoughts and expectations of the parents. Group facilitators lead parents to better understand what is developmentally appropriate for their children.

Much of the program concentrates on parents learning effective child management skills. The Discipline Pyramid pictured in Figure 5.6 on page 172 organizes this part of the training and graphically emphasizes what parents should use to manage their children's behavior. The lower and big-

DON'Ts	DOs
Long lectures or "sermons"	Use brief statements of 10 words or less.
Blaming (e.g., "You need to stop ______," "It's your fault," etc.)	Use "I" statements (e.g., "I feel ______ when ______") or take responsibility for your own actions.
Vague statements (e.g., "Shape up," "Knock it off," "I don't like that," etc.)	Use direct and specific statements (e.g.,"Stop teasing your sister").
Asking negative questions (e.g., "Why do you always do that?," "How many times must I tell you?")	Use direct and specific statements (e.g., "Stop teasing your brother").
Poor listening while looking away, silent treatment, crossing arms, and so forth	Actively listen with good eye contact, leaning forward, nodding, and so forth.
Interrupting others	Let each person completely state his/her thoughts before stating yours.
Not checking to see if you really understand others	Give feedback/paraphrase (e.g., restate what another said to you).
Put-downs (e.g., "You're worthless," "I'm sick of you," etc.), threats, and so forth	Be constructive (e.g., "I'm concerned about your grades," "Something is bothering me; can we discuss it?," etc.).
Yelling, screaming, and so forth	Use a neutral/natural tone of voice.
Sarcasm	Say what you mean, be specific and straightforward.
Going from topic to topic	Stay on one topic.
Bringing up old issues, past behavior	Focus on here and now.
Not matching verbal and nonverbal communications (e.g., saying "I love you" while pounding one's fist angrily on the table	Match verbal and nonverbal communication (e.g., saying, "I love you" while smiling).
Keeping feelings inside	Express feelings to others appropriately.
Scowling, directing antagonistic facial expressions toward others	Use appropriate facial expressions toward others.
"Mind reading" or assuming you know what other people think	Really listen to others' point of view; ask questions to make sure you understand.

FIGURE 5.5. Couple and family communication skills. From Bloomquist (1996). Copyright 1996 by The Guilford Press. Reprinted by permission.

ger part of the pyramid is the positive approaches that parents can use to increase positive behavior in their children. Parents are trained to use these strategies most of the time. The upper and smaller portion of the pyramid contains negative approaches that parents can use to decrease negative behavior in children. Parents are trained to use these strategies least.

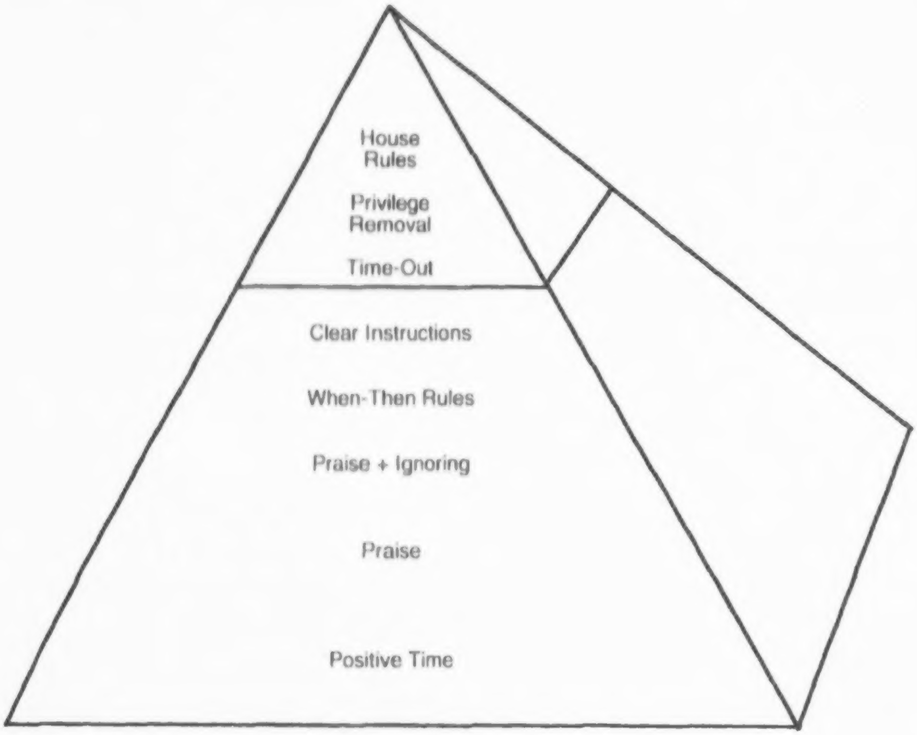


FIGURE 5.6. The Discipline Pyramid. From McMahon, Slough, and Conduct Problems Prevention Research Group (1996). Copyright 1996 by Sage Publications, Inc. Reprinted by permission.

Parents are taught all the skills in the pyramid and a problem-solving approach to solve specific child problems.

Deciding Which Skills to Emphasize in Training

We understand that practitioners cannot deliver all the previously discussed content interventions to families receiving PFST. Practitioners will need to select those skill areas that are most relevant for the family or group of families being served. In our opinion, the families of younger children will gain the most from interventions that focus on promoting parenting skills and parent–child cohesion. Of course, older children will benefit from these procedures too, but they also could be involved in learning family interaction skills. The PFST content that addresses broader needs of parents and families will certainly be relevant to most families. Obviously, the presenting problems of the families being served need to be considered in selecting

TABLE 5.2. Summary of Best Practice Training Content Areas for Parent and Family Skills Training

Training content areas	Best practices
Understanding social learning principles	Teach parents about the rationale and theoretical principles underlying specific interventions.
Observing and tracking child behavior	Teach parents to define and pinpoint specific child behaviors; plan when to observe the child; count the frequency of the behavior during child observation.
Encouraging child-directed interaction and play	Teach parents to increase relationship-enhancing behaviors and decrease relationship-detracting behaviors during child-directed play and activities.
Shaping positive behavior with positive attention and reinforcement	Teach parents to increase attention and reinforcement for prosocial child behavior.
Ignoring mild negative behavior	Teach parents to reduce attention for mild child problem behavior.
Defusing power struggles and deescalating parent–child conflict	Teach parents stress management skills to stay calm and commonsense strategies to avoid and defuse escalating child behavior.
Using time-out/removal of privileges for noncompliance	Teach parents to stay calm and use effective commands/warning/time-out or removing privileges procedures.
Using standing or house rules for behavior	Teach parents to explicitly state the rules and use time-out or removal of privileges when rules are violated.
Using a token system for behavior management	Teach parents to use tokens/points to shape child behavior.
Monitoring and supervising children	Teach parents to keep track of children; provide structure and expectations.
Intervening with stealing	Teach parents to define stealing, monitor stealing, and provide consequences for stealing incidents.
Intervening with firesetting	Teach parents to monitor child, provide contingent reinforcement for prosocial activity involvement, and provide contingent loss of privileges for firesetting. Teaching child self-control skills and educating him or her about fire safety may also help.
Addressing parents' personal and other family problems	Teach family members to use commonsense/practical strategies to deal with personal, parent/family, and contextual problems; teach them skills to cope with stress, restructure unhelpful thoughts, and improve marital/family interactions.
Integrating parent and family skills training	Combine multiple skills training content areas into one intervention.
Deciding which skills to emphasize in training	Consider the developmental status of children, their presenting problems, and practical matters in determining which skill training content areas to emphasize in training.

interventions. In addition, practical matters need to be taken into account. There is a limit to the amount of time that a practitioner can work with a family. Since it takes three to six sessions to initially train parents or family members in any one skill area, the practitioner needs to determine which are the most important skills to focus on. Practitioners are therefore advised to carefully consider the unique needs of the families they are working with and provide the most relevant PFST interventions. The practitioner will need to determine the amount of sessions he or she can deliver to a family and plan accordingly.

Summary

Table 5.2 provides a summary of best practices for training content in PFST. As the table demonstrates, there are multiple skills that can be taught and much overlap between them. Practitioners need to match the specific needs of the families receiving PFST and select those that are most in need of change.

CONCLUSION

PFST is an empirically supported intervention for children with ACP. We have presented the most common intervention ingredients for conducting effective PFST with the parents and families of children with ACP. PFST can be delivered in clinic, school, and community settings. We strongly advocate that practitioners include PFST in their work with most, if not all, children with ACP and their families.

CHAPTER 6

Mental Health Treatments

Children with ACP and related difficulties are frequently served in mental health treatment settings. In fact, children diagnosed with ODD, CD, and ADHD comprise the largest numbers of child cases receiving mental health services (Kazdin, 1995). In many instances it is necessary for children with ACP to receive mental health services as part of a comprehensive intervention plan.

In this chapter we describe mental health treatments for children with ACP who qualify for a psychiatric diagnosis and who exhibit functional impairment. This includes treatments for children with diagnoses of ODD, CD, and ADHD, as well as comorbid psychiatric conditions. The various mental health treatments fall somewhere on a continuum expressing the amount of restrictiveness experienced by the child. The level of restrictiveness corresponds to the level of symptoms and the amount of functional impairment the child exhibits. Less restrictive treatments include medications and clinic therapy (i.e., therapy provided by practitioners in mental health settings); more restrictive treatments include summer treatment programs, day treatment/partial hospitalization, residential treatment, and inpatient hospitalization. Typically, these interventions are conducted in a mental health setting by experienced mental health practitioners. We will discuss all these types of mental health services in this chapter.

We hypothesize that mental health treatments address risk factors and protective factors in the child, parent/family, and, to some extent, social/peer life domains (see Tables 2.3 and 2.4 in Chapter 2). Medications reduce risk in the child and parent/family life domains primarily through behavioral and emotional symptom reduction in the child. Clinic therapy and more restrictive treatments also reduce the same risks, but have the potential to enhance protective factors in the child and parent/family life domains (if they incorporate effective interventions such as social competence training, parent and family skills training, etc.). Although not typically a direct focus, mental health treatments can positively effect the social/peer life domain by reducing some of the negative child behaviors and characteristics that adversely impact social interactions and peer affiliations.

Our presentation of mental health treatments is divided into three main sections. First, we review common medications used to treat symptoms associated with behavior disorders. Second, we discuss procedures that can be used to improve the effectiveness of clinic therapy. Third, we provide information pertaining to increasingly restrictive treatments for children with severe levels of impairment. In each of these sections we review available research that evaluates treatment effects and present best practices for conducting them. We also give examples of different practices.

OVERVIEW AND RESEARCH EVALUATION OF MEDICATION TREATMENT

Medications are commonly administered to treat children with ADHD, ADHD with comorbid disorders, and aggression. These medications target ADHD symptoms, including hyperactivity, impulsivity, and inattentiveness. Aggressive behaviors, especially those associated with emotional lability and arousal, are also targeted by prescribing medications. Finally, various medications can treat comorbid conditions such as mood and anxiety disorders. Different medications, with different pharmacological effects, are used to reduce these target symptoms.

Childhood pharmacotherapy entails the use of six common classes of medications: stimulants, antidepressants, mood stabilizers, antihypertensives (adrenergic agonist), antipsychotics, and antianxiety medications (Wilens, 1999). Antipsychotic and antianxiety medications are not as commonly used for ACP and related problems as are the other classes of medications. Numerous studies exist evaluating the effects of these different medications on children; most of them focus on stimulants. We will attempt to summarize this research by discussing reviews of the literature conducted by the American Academy of Child and Adolescent Psychiatry (1997a, 1997b), Green (1996), Greenhill, Halperin, and Abikoff (1999), Schachar and Ickowicz (1999), Spencer and colleagues (1996), Waslick, Werry, and Greenhill (1999), and Wilens (1999). What follows is a research review of the most commonly used medications, the mechanisms by which they are hypothesized to impact children, and the observed effects on children's functioning.

Stimulants are by far the most widely prescribed medications in childhood pharmacotherapy. They are used primarily to treat children with behavior disorders. The six common types of stimulants include methylphenidate (Ritalin, Metadate, Concerta), dextroamphetamine (Dexedrine), magnesium pemoline (Cylert), amphetamine (Biphetamine), methamphetamine (Desoxyn), and amphetamine compounds (Adderall). Of all the stimulants, methylphenidate is the most commonly used. Stimulants improve neurotransmitter production of dopamine and norepinephrine in the central nervous system. The clinical effects of stimulants are short acting for the most part (approximately 3 to 6 hours), although there are longer acting variations of methylphenidate and dextroamphetamine (approximately 8 to 12 hours). Magnesium pemoline and amphetamine compounds are by their chemical nature longer acting medications (approximately 12 to 24 hours). Most studies have evaluated stimulant medications used with children with ADHD who may or may not have other commonly associated problems. This includes many randomized controlled research studies. The specific effects of stimulant medications are summarized in Table 6.1. These medications improve the core symptoms of ADHD, including hyperactivity, impulsivity, and inattentiveness, in a majority of children. Use of stimulants also results in a reduction of aggression, anger, noncompliance, and some covert behaviors. Importantly, stimulant medications also positively influence peer–child and parent–child interactions, as well as academic productivity. Higher doses are related to improved behavior and reduction of aggression.

Four types of antidepressant medications are prescribed for children exhibiting behavioral, mood, and anxiety disorders. One type is tricyclic antidepressants. The most common tricylics are imipramine (Tofranil), desipramine (Norpramin, Pertofrane), nortriptyline (Pamelor), and clomipramine (Anafranil). Generally, tricyclic antidepressants promote production of the serotonin and norepinephrine neurotransmitters. It can take weeks for an individual to achieve a therapeutic dose, but once such a dosage is achieved, these medications provide continuous coverage of symptoms. Research data is based on case reports, open trials, and several randomized controlled studies. Tricyclic antidepressants primarily reduce such behavioral dimensions of ADHD as disruptive behavior. They are less effective than stimulants, however, in improving behavior in children. They exert limited impact on children's academic productivity and cognitive performance. Although these medications reduce aggression in animals, this has not been studied in children.

The second type of antidepressants is the selective serotonin reuptake inhibitors (SSRIs). These SSRIs include fluoxetine (Prozac), sertraline (Zoloft), fluvoxamine (Luvox), paroxetine (Paxil), and citalopram (Celexa). These antidepressants enhance the production of the serotonin neurotransmitter. They also provide long-lasting coverage once a therapeutic dose has been achieved. There is limited research evaluating their effectiveness; what does exist is primarily case reports and open trials. Nonetheless, research

TABLE 6.1. Specific Effects Documented in Groups of ADHD Stimulant Responders

Motor effects

Reduce activity to the level of normal peers
Decrease excessive talking, noise, and disruption in the classroom
Improve handwriting
Improve fine motor control

Social effects

Reduce off-task behavior in classroom
Improve ability to play and work independently
Reduce anger
Decrease intensity of behavior
Improve participation when playing baseball
Reduce bossiness with peers
Reduce verbal and physical aggression with peers
Improve (but not normalize) peer social status
Reduce impulsive stealing and property destruction (in a laboratory setting)
Reduce noncompliance, defiance, and oppositional behavior with adults
Improve mother–child and family interactions
Parents and teachers become less controlling and more positive

Cognitive effects

Improve sustained attention, especially to boring tasks
Reduce distractibility
Improve short-term memory
Reduce impulsivity
Enhance use of cognitive strategies already in the repertoire
Increase amount of academic work completed
Increase accuracy of academic work

Note. From American Academy of Child and Adolescent Psychiatry (1997b). Copyright 1997 by Lippincott Williams & Wilkins. Reprinted by permission.

does suggest that SSRIs improve the behavioral dimensions of ADHD, but not attention. These medications have been found to reduce aggression in animals, but they have not been well studied for this effect in children.

Monamine oxidase inhibitors (MAOIs) are a third type of antidepressants. The MAOIs include phenelzine (Nardil) and tranylcypromine (Parnate). These medications stop the breakdown of norepinephrine and dopamine neurotransmitters. Their effects are also long-lasting once a therapeutic dose is reached. The research consists mostly of case studies and open trials, although some randomized controlled studies do exist. Tranylcypromine has been found to reduce behavioral symptoms of ADHD in children. The MAOIs impact on children's aggression has not been well studied.

The final type of antidepressants is the atypical antidepressants. The